

# AMERICAN NURSERYMAN

*The Nurseryman's Forte: To Make America More Beautiful and Fruitful*

**MAY 1, 1939**



*Aronia Melanocarpa Elata*



**Hybrid Rhododendrons from Cuttings**  
**Business Ethics of Shade Tree Work**  
**Cash Payment for Tree Planting**  
**Selected Varieties for Southeast**

# AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

F. R. KILNER, Editor  
Published Semi-monthly by  
AMERICAN NURSERYMAN  
PUBLISHING CO.

508 S. Dearborn Street,  
Chicago, Ill.

Telephone: Wabash 8194

New York Office—67 West 44th Street  
N. L. Huebisch Tel. Murray Hill 2-4871

Entered as second-class matter December 11,  
1922, at the post office at Chicago, Ill., under  
the act of March 3, 1879.

SUBSCRIPTION PRICE: \$1.00 per year; out-  
side United States, \$1.50. Single copies, 10c.

ADVERTISING RATES on application. Forms  
close on 10th of month for mid-month issue  
and on 25th of previous month for first-of-  
month issue. If proofs are wanted, copy  
should be on hand one week earlier.

TABLE OF CONTENTS	Page 32
INDEX TO ADVERTISERS	Page 34

## SPRING DELAYED.

Cold and rain—even snow in northernmost states—have delayed nurserymen's digging in the upper half of the country. Little progress was made in some places until the middle or latter part of April. Clearer weather the past week has been accompanied by continued moderate temperatures, and signs point to a late spring. These conditions have made it possible for the planting of large trees at a later date than usual, an advantage decidedly in favor of nurserymen in New England, where the hurricane of last autumn has occasioned many replacement orders.

The cool weather has enabled wholesalers to move most of their stock out of storage, and if demand continues under the favor of cool weather, prolonging the planting season, the ultimate outcome may prove to be one of the best seasons the trade has had for some time.

## FRIENDLY SERVICE.

One of the reasons that the subscription list of the American Nurseryman has increased rapidly is the friendly service of readers. By recommending the magazine to other nurserymen, they do them a friendly service as well as the publisher. Sometimes a new subscriber gives the friend credit by name, and sometimes not. One just wrote, "I am advised to become a subscriber of your magazine by a friend of mine in the state of Maine." Even though the friend's recommendation cannot be acknowledged in person, the publisher appreciates the friendly service.

## The Mirror of the Trade

### EXEMPT NURSERY STOCK.

Through the efforts of one of their number as a member of the legislature, nurserymen of the state of Washington were able, at the last session, to obtain amendment of the tax laws to secure exemption of nursery stock from the personal property tax. The amendment causes the law to read: "The growing stock of nurserymen shall be considered the same as other growing crops on cultivated land."

Frank A. Chervenka, rose and bulb grower, Sumner, Wash., a representative in the state legislature, introduced the bill, which recently became a law by the signature of the governor.

Mr. Chervenka also introduced, by departmental request, an amendment to the nursery license law which, by its passage, provides for reciprocity with other states as regards interstate shipments of nursery stock without the payment of a license fee. The amendment provides "that the director of agriculture may enter into reciprocal agreement with other states, under which nursery stock owned by licensed nurserymen or licensed nursery dealers in such states may be sold or delivered in the state of Washington without payment of a license fee, provided that like privileges are accorded in such other states to licensed nurserymen of the state of Washington."

### GOOD CALIFORNIA TREES.

The February windstorm in California gave indication of the best trees for shade tree planting, as the New England hurricane of last autumn did. It is reported that the live oak, or *Quercus agrifolia*; camphor, jacaranda, pepper and crape myrtle were among those least affected. That which suffered most severely was the black acacia, *A. melanoxylon*, of low standing on the tree list.

THE formal opening of the Bartlett Arboretum, Belle Plaine, Kan., was held Easter Sunday. During the entire month of April the Belle Plaine chamber of commerce sponsored a tulip festival, at which time hundreds of varieties of tulips, hyacinths, pansies, daffodils and phlox were in bloom.

### ARONIA MELANOCARPA ELATA.

The glossy chokeberry, *Aronia melanocarpa elata*, is often offered in the trade under the species name, *Aronia melanocarpa*. However, this variety differs from the parent in that it is taller and suckers less freely. Its comparative merits were discussed in the April 15 issue by L. C. Chadwick in his article on "Compiling a New Nursery List."

Having many features that recommend it for numerous situations, *A. melanocarpa elata* is not used to the extent that its beauty, easy growth and hardiness warrant. This shrub is excellent where a good showing of flowers, foliage and fruit is desired.

The glossy chokeberry, usually growing to about ten feet, is covered with clusters of white flowers, tinged with pink, in early spring. An attractive feature in autumn is the red berries, which ripen in September and persist late into the winter. The berries, together with the dense, clean foliage, which turns yellow and red in autumn, present vivid color in the usually dreary autumn landscape.

Besides its use as a specimen, the plant is recommended for use in rhododendron beds and for border planting, combining well with broad-leaved evergreens.

It will do well under average garden conditions, but prefers a moist and slightly acid soil. This shrub is often recommended for roadside plantings where natural climatic and soil conditions can be provided.

For planting, the berries should be soaked for several days and then mashed. The pulp should be removed and the seeds stratified until spring. Softwood cuttings under glass may also be taken.

THE April bulletin of popular information of the Morton Arboretum devotes the entire issue to a discussion of plants with persistent foliage for winter interest. Plants discussed are those which will tolerate highly alkaline soil conditions, where the culture of most broad-leaved evergreens is not satisfactory and the landscape plantings are usually unattractive during the winter.

# AMERICAN NURSERYMAN

[Registered U. S. Patent Office]

**The Chief Exponent of the American Nursery Trade**

*The Nurseryman's Forte:  
To Make America More Beautiful and Fruitful*

VOL. LXIX

MAY 1, 1939

No. 9

## Hybrid Rhododendrons from Cuttings

*Two New and Different Methods of Production by Cuttings More Easily and Quickly Than in the Past Announced Almost Simultaneously by Their Authors*

By one of those coincidences which occasionally occur in the fields of horticulture and science, announcement appeared in the past month of two quite different methods to facilitate and speed up the production of hybrid rhododendrons from cuttings. Both have come after experiments extending over several years, and both were by persons whose competence in the field is recognized.

The common commercial practices of reproducing hybrid rhododendrons, by grafting and layerage, are slow and expensive. Consequently the price is beyond the means of many gardeners who admire these brilliant flowers. Hence the new methods proposed will have great importance to nurserymen, by enabling them not only to propagate these plants more easily and quickly, but through reducing the costs, also to extend greatly the sale of rhododendrons and azaleas. More nurserymen will be induced to propagate and offer these plants, hitherto produced chiefly by a limited number of specialists.

The important points in these methods of propagation are given here through the courtesy and co-operation of the editors of the periodicals in which they appeared.

### NEW MEDIUM FOR CUTTINGS.

Announcement in the April 1 issue of the American Home magazine of an easy and successful method of propagating hybrid rhododendrons from cuttings, in an article by G. G. Nearing, New Jersey nurseryman, is followed by a fuller account and the details of the method, by Mr. Nearing, in the May 1 issue of Real Gardening.

He reports some of the best varieties, like Caractacus and atosanguineum, have rooted as high as ninety-seven per cent, and not one out of thirty-eight varieties has failed entirely, only sixteen having struck less than fifty per cent on the average.

After long study of the habits of rhododendrons and other ericaceous plants, Mr. Nearing first tried his method in 1925. He placed some dead weeds and trash in the bottom of a soap box, thinking this might set up a fermentation and produce something like the smelly muck of a rhododendron bog. He added peat moss for acidity and then a layer of sand. No provision for drainage was made, and the glass was never lifted except for watering. The box was in the north angle of a garage, where no sunlight could reach it. His success led him to the trial of various substances and combinations. Finally in 1928, he found the formula for the propagating medium which he adopted as standard, finding that even slight variations usually resulted unfavorably. Following is his description of the medium:

"In a tight box, five feet ten inches long, two feet ten inches wide and one foot deep, three bushel measures of peat moss are mixed thoroughly with one bushel of spent mushroom manure, to form the bottom layer. This is carefully leveled and on it placed carefully, spreading around a handful at a time so as not to depress the soft bottom layer at any point, a thorough mixture of one-half bushel of sand and one-half bushel of sedge peat (screened peat moss will do fairly well in place of the sedge peat).

This middle layer is leveled, and on top of it, spread about with equal care, goes a top layer of three bushels of sand.

"The kind of sand may mean success or failure, and has meant failure in several instances. If too coarse, the cuttings wither and die; if too fine, they rot. It so happens that the grade sold to builders as concrete sand, and therefore easily obtainable almost anywhere, is usually about right, screened through quarter-inch mesh or somewhat larger. The grains must be rounded, and there must be plenty of fine ones mixed with the coarse. I now use pit-sand from Bergen county, N. J.

"The filled box is then watered with a fine spray, so as not to disturb the level surface of the sand, until water stands an inch deep all over it. After another similar watering on the following day, it is ready to receive the cuttings.

"The box holds a hotbed sash in a slanting position, to shed rain, is tight, without ventilation, buried almost its full depth in the ground and so placed that no direct sunlight can fall upon it, yet it must receive plenty of light from the north sky.

"This box holds 250 cuttings two inches apart. They are made from the tips of new growth that has taken its normal deep green color in August or September. Cuttings have been tried occasionally at other seasons from March to November, usually to utilize broken or dying wood, and often with fair success. Three to five leaves are left at the crown of the cutting, very long leaves are shortened and the shank is cut to three inches or less, never more. They are inserted in



the sand right up to the leaf bases and are then watered until water stands on the sand. This watering is the only 'firming' the cuttings receive.

"Watering is repeated once a week in fall, once a month in winter and twice a week in spring and early summer. No other care is required except to spray occasionally with 2-2-50 Bordeaux mixture, and to remove any cuttings or leaves which die. Very few cuttings ever do die except those of certain difficult varieties. Of 1,415 cuttings placed last year, 848 rooted, 372 still in good condition were put back to root the following year (for some this will be the third season, as they have already spent two years in the medium), and only 195 (fourteen per cent) had died. By using only cuttings of the dozen easiest varieties, eighty to ninety per cent can be depended on to strike root, while fewer than five per cent ordinarily die."

He found the easiest varieties to root to be *album grandiflorum*, *atrosanguineum*, *Boule de Neige*, *Caractus*, *catawbiense album*, *catawbiense grandiflorum*, Cunningham's *White*, *Kettledrum*, *Lady Armstrong*, *Lee's Dark Purple*, *purpureum elegans*, *purpureum grandiflorum* and *roseum elegans*.

Somewhat slower are *album elegans*, *Charles Bagley*, *Edward S. Rand*, *Everestianum*, *Memoir*, *Minnie*, *Mrs. C. S. Sargent* and *Parson's grandiflorum*.

Rather easy to propagate, but somewhat less hardy, are *candidissimum*, *Cynthia*, *Ingatius Sargent*, *Lady Clementina Mitford*, *Lady Grey Egerton* and *Luciferum*.

Slow and rooting only a low percentage are *America*, *Amphion*, *Charles Dickens*, *Charles S. Sargent*, *delicatissimum*, *Dr. H. C. Dresselhuys*, *F. D. Godman*, *General Grant*, *H. W. Sargent* and *roseum superbum*.

The use of root-promoting chemicals he found only hastened the rooting of the cuttings a little, a negligible advantage in his procedure.

Rooted cuttings, he states, may be set out for about two years in shaded beds, but it is better to pot them in 4-inch pots of peaty soil and winter the first season in a shaded coldframe. For while some have a large ball of roots and will not suffer in the open, others have put out only a few slender fibers and do better for all possible protection the first winter. If bedded out, they should be mulched heavily with oak leaves.

In all, perhaps 40,000 cuttings of rhododendron, holly, etc., have been rooted by this method in the decade during which it has been in use. The only year it failed was in 1935, when a flood washed out the cuttings. Other broad-leaved evergreens will root along with the rhododendrons, and so will some conifers, but most of the conifers propagated from cuttings can be handled more quickly and successfully by conventional methods.

The foregoing extracts are only a short part of the article in *Real Gardening*. The statement is made that a detailed paper on the subject has been prepared by the New Jersey agricultural experiment station, New Brunswick, N. J., which will be available, when it is published, to anyone who wishes to go more deeply into the subject.

#### LEAF-BUD CUTTINGS.

Experimenting with growth-promoting chemicals to root ericaceous plants, Henry T. Skinner, of Cornell University, made tests of the ordinary cuttings of rhododendron hybrids and also with a new type of cutting, the leaf-bud cutting. After three years of testing, it seemed worthy of introduction as a practical method, and announcement of his results were first made at the short course for nurserymen at Rutgers University in February. The first publication of his method appears in an article in the April 1 issue of the *Journal of the New York Botanical Garden*. Some of the illustrations accompanying the article appear here through the courtesy of the editor of that periodical.

The leaf-bud cutting has been used by Doctor Stoutemeyer and others and found particularly successful in the propagation of blackberries. It consists not only of lamina and petiole, but of these with axillary bud and a portion of stem attached. Rhododendrons have many leaves to a growth-shoot; if each, by suitable treatment, would root easily and produce a new individual, the advantages in conservation of material and in quantity production would be obvious. The suggestion has worked out surprisingly well.

"The best time to take leaf-bud cuttings of *catawbiense* hybrids and such other rhododendrons as have been tried seems to be about the last week of June or in early July," writes Mr. Skinner. "At this time terminal buds have formed upon the current season's growth and the young leaves are fully developed and partially hardened. Bearing this in mind, the actual time chosen will no doubt vary to some extent with the plant variety as well as the locality and conditions under which the stock plants are growing. This same type of leaf cutting has also been rooted quite successfully in late winter. The percentage rooting, however, seems somewhat higher and the time required for rooting shorter when cuttings are taken in summer.

"When the young shoots are in proper condition any fair-size healthy leaves which bear dormant but visible axillary buds can be taken from them as cuttings. Each leaf is removed from the stem with a sharp knife so that the axillary bud and a



Several Leaf-bud Cuttings from One Shoot.



Cutting as Placed in Sand.



portion of wood and bark, about  $\frac{3}{4}$ -inch long, remain attached to the base of the petiole. Toward the top of the shoot the leaves are often so closely clustered that only every other one can be conveniently used. A normally vigorous shoot of a variety such as *R. catawbiense roseum elegans* will furnish as many as six or more cuttings. Ordinary precautions to prevent undue water loss during handling should of course be taken; it is well to wrap the shoots in moist burlap as soon as they are gathered and keep the leaves themselves continually moist.

"Closed grafting frames within the greenhouse have been found satisfactory for rooting. Outdoor frames would doubtless serve the purpose, provided that the sashes fit tightly, for a moist atmosphere above the cuttings is necessary. A bottom temperature of 70 to 75 degrees Fahrenheit is evidently about right. Electric cable gives perhaps the ideal heat, for it can be regulated simply.

"The most efficient rooting medium that we have used has been composed of three parts New Jersey quartz sand to two parts of peat moss. In all cases this has proved decidedly better than either peat or sand alone.

"The cuttings are set in the normal way in rows about two inches apart,

with the leaves upright and just touching in the row, though not overlapping, for plenty of light must be allowed to reach each leaf. The cutting is buried to about the length of the petiole. The rooting medium should be just firmed, but not pressed hard, and as soon as an area is filled the cuttings can be settled into place by watering.

"Many leaf-bud cuttings will root entirely satisfactorily without chemical treatments. It has been found, however, that the growth substances do give a rather better root system and certainly reduce the rooting time by two or three weeks. If indolebutyric acid is used, a treatment of about six milligrams of acid per hundred cubic centimeters of water is recommended, the cuttings being soaked in it in the normal way for eight to twenty-four hours before placing them in the rooting medium.

"The care of leaf-bud cuttings is no different from that accorded to any ordinary softwood cuttings. Shading will be required on sunny days and an occasional top syringing when the leaves become dry. The rooting medium must not be allowed to dry out, but at the same time it should not be kept too wet or bad effects will quickly be noticeable.

"Cuttings set in late June and

treated with indolebutyric acid usually make good root systems in about ten weeks; untreated cuttings will require about three weeks longer.

"As soon as the cuttings have made a sizable root ball it has been found practical to pot them in  $\frac{2}{4}$ -inch rose pots in a soil mixture composed of acid wood soil, peat moss and quartz sand. In potting it is well to keep the basal bud as close to the soil surface as conveniently possible. The rooted cuttings are then placed on the greenhouse bench and kept at a fairly high temperature (75 to 80 degrees) to induce breaking of the basal buds.

"Some difficulty was at first experienced in securing satisfactory shoot growth from the rooted cuttings. Various light and temperature treatments were tried, and it was found that temperature is apparently the controlling factor; 65 degrees is too low to induce proper breaking of the buds. An 18-hour day, attained by the use of 75-watt bulbs suspended three feet above the cuttings, in addition to the high temperature, will induce rather more rapid shoot growth, but at 75 degrees the buds will break quite satisfactorily without this additional light.

"The ease with which shoot growth can be obtained from the axillary buds is variable with different



Leaf-bud Cutting of  
*Rhododendron Decorum*.



Root Development after a Few Weeks.



Root-ball and Shoot Five Months from Taking Cutting. →

species. *Rhododendron ponticum* breaks readily indeed; in fact, cuttings of this plant will frequently produce shoots an inch or two long while still in the propagating frame. The catawbiense hybrids seldom break their buds this early.

"An occasional liquid feeding with a dilute solution of sulphate of ammonia (one tablespoonful to three gallons of water) or a small amount of an organic nitrogenous fertilizer such as tankage or cottonseed meal added to the potting mixture may encourage more rapid vegetative growth.

"Cuttings made in late June and potted the second week in September, if immediately carried on at a warm temperature, will usually have developed shoots three or four inches long by early November. The one to fifteen per cent which have not started by this time will probably be found to have had their buds damaged in some way and may better be discarded.

"The young plants can be kept in continuous growth by holding them at a warm temperature. It might be more practical, however, to harden them off at this stage and store them in a cool place until they can be planted in prepared beds outside in early spring. With proper care and the provision of good growing conditions, rhododendron plants from twelve to eighteen inches high can be produced from a single leaf within a year.

"The writer has rooted leaves of *R. ponticum* during July and secured plants of sufficient size in eight months for them to be used quite successfully as understocks for grafting in March. Such plants were, of course, maintained in a state of more or less continuous growth.

"It will remain for much wider experimentation than has been possible at this early date to determine what species and varieties of rhododendrons can be satisfactorily propagated by leaf-bud cuttings. In the tests upon which this report is based, *R. ponticum* has given the most ready response of any plant so far tried. With due care as high as ninety-five per cent of the cuttings taken of this species will root without difficulty and produce new plants within a few weeks. It would seem logical that rhododendron hybrids in which the blood of this species predominates

might also be looked to as likely subjects for experimentation.

"Of the hybrids of *Rhododendron catawbiense*, three only have been handled, but all of them with fair success. These three were *Boule de Neige*, *purpureum elegans* and *roseum elegans*. Of these, *roseum elegans* gave the most rapid response, while *purpureum elegans* was the slowest. On an average, about eighty to eighty-five per cent of all leaf-bud cuttings taken ultimately developed into new plants.

"*R. decorum* responds readily. *R. carolinianum* and *minus*, on the other hand, have proved slow to root; they may take sixteen weeks or longer. Once rooted, they produce plants quite well, but, because of the time involved, propagation of these plants by leaf-bud cuttings is not at present considered to be practical. The same is true of *R. latevirens* and may possibly be found to apply to other small-leaved plants. *R. latevirens* can be propagated much more readily by stem cuttings. *R. maximum* has given the poorest response of any. The difficulty again is in rooting. The rooting percentages with this plant may ultimately be as high as ninety per cent, but not until after sixteen or twenty weeks in the propagating bench, which is a long time to wait.

"Among related plants, *Pieris japonica* and *Leucothoe Catesbaei* have both been found easy to handle by this method. The mountain laurel, *Kalmia latifolia*, on the other hand, remains extremely slow. Possible ways of speeding the rooting of these slower plants are being investigated at the present time. The only azalea so far tried was *R. japonicum* and it gave no response at all. But the cuttings were taken rather late in summer and for that reason it should not, perhaps, be considered a fair test."

#### NAME BUREAU ASSISTANT.

The appointment of P. V. Cardon as assistant chief of the bureau of plant industry of the United States Department of Agriculture has been announced by E. C. Auchter, chief of the bureau. Mr. Cardon has been in charge of forage crops research in the bureau since 1935.

Mr. Cardon, who has had long experience in crop research and administration, holds degrees from both the Utah state agricultural college and the

University of California. From 1909 to 1920 he served with the United States Department of Agriculture, working on cereal, cotton and dry-land agricultural problems. Later he took a position as professor of agronomy and agronomist of the Montana state college and experiment station. After this he held positions as director of the southern branch of the Utah state agricultural college, editor of the *Utah Farmer*, farm economist of the Utah experiment station and from 1928 to 1935 director of the station.

#### E. A. WHITE TESTIMONIAL.

A testimonial dinner will be held June 15 at Cornell University, by the graduates, the many friends and the associates of Prof. E. A. White on the occasion of his retirement as head of the department of floriculture and ornamental horticulture at Cornell University, after twenty-six years of active service.

Before coming to Cornell in 1913, Professor White was engaged in educational work in Connecticut, Texas and Massachusetts state colleges. He organized the first department of floriculture at Massachusetts in 1906 and also organized the present department at Cornell in 1913 as a separate unit. In 1923 ornamental horticulture was added. Today the department stands as one of the best equipped of its kind and has the largest student registration of any similar department in American colleges. Graduates of the department occupy prominent positions in educational, journalistic and commercial fields of horticulture throughout the world.

Professor White was secretary of the American Rose Society for a number of years, acted as chairman of the committee on horticultural education for the Society of American Florists, was secretary of the Federation of Horticultural Societies of New York State and is a fellow of the Royal Horticultural Society.

He is the author of numerous books and papers, and the second edition of "American Orchid Culture" was published last month. He was honored last year with the gold medal of the Massachusetts Horticultural Society.

An invitation is extended to honor Professor White by presence at the dinner by R. C. Allen, chairman of the committee in charge.

# Speculating on Scrophulariads

*Third and Concluding Article on Scrophulariads Discusses Verbascum and Celsia, Two Genera Not Often Seen in Nurseries or Gardens—By C. W. Wood*

The verbascum tribe of scrophulariacea has two genera, verbascum and celsia, that are of interest to plant growers, though neither is of great importance at our present stage of development. The two genera are closely related, differing mostly in a few minor floral characters, such as the four stamens of two kinds in celsia while verbascum has five, all alike. They are also much alike in that most kinds are biennial, and that is the greatest drawback to their culture, because gardeners are prejudiced against monocarpic plants. Even at that, there is much good material in the two groups—material not often seen in gardens or nurseries, that would sell if gardeners knew about it.

Celsia is a genus of forty or more species, mostly congregated around the eastern end of the Mediterranean; hence many are to be suspected of tenderness to cold. In actual practice I find few are able to stand winters in northern Michigan, though most should be hardy in the latitude of Chicago. The most readily available species seems to be *C. cretica*, a 3-foot to 4-foot plant when it is producing its 2-inch-wide yellow flowers with brown spots at the center. It is a showy plant that would no doubt sow itself in the warmer sections, and it is a good landscape item where spire effects are needed. I shall not take up much space with these oriental mulleins, because not many are easily found, but it will surely pay the neighborhood grower to search for the few perennial kinds. My own experience with them has been too limited, for the obvious reasons that so few are hardy here, to speak with much authority on their duration, but I can heartily recommend *C. bugulifolia* as being quite long-lived and curious enough, if not beautiful, to attract anyone. From a tuft of large, thick, mullein-like leaves spring foot-high stems bearing quite large flowers unlike anything I have ever seen, quite beyond any words of mine to describe them. They start out to be purple, but later change their minds and assume most curious bronzy, yellowish, metallic hues. No doubt further searching will reveal even better material in the genus. All

that I have grown require sun, seem to prefer an open, dry soil and are easily grown from seeds.

Generally speaking, the mulleins have gained little headway in this country, a state of affairs that can be traced, I imagine, to the fact that knowledge of the genus is mostly restricted to the weedy species. A showing of good kinds, such as *Verbascum hybridum* Miss Willmott and *V. phœniceum*, will do much to acquaint your customers with the good qualities of the genus. For a start in mulleins try the following: *V. hybridum* Miss Willmott, a 5-foot to 6-foot plant, with pure white flowers in July and August; *V. pannosum* (*V. longifolium pannosum* of some lists), with large silvery-white leaves and 3-foot to 5-foot spikes of large sulphur-yellow flowers in July and August; *V. phœniceum*, a 15-inch to 30-inch mullein, with slender spikes of flowers in a wide range of colors, because, although the floras give the color as red or purple, a packet of seeds will give plants ranging from a good pink through all shades of mauve and violet to deep purple and an occasional brown or white, and, finally, *V. Wiedemannianum* from the Caucasus, with its rich violet flowers on 2-foot stems. One should not, of course, forget the stately *V. olympicum*, which grows as high as eight or nine feet under good culture and produces its bright yellow flowers in July and early August. There are close to 300 species of mulleins, mostly in the Mediterranean regions; so it is not likely that all the good ones are in the foregoing list. Although they are usually grown from seeds, which is the generally accepted method of propagation, especially desirable forms, such as an extra-good color in *V. phœniceum*, may be propagated from cuttings or division in early spring. Through the latter method it is possible to maintain a plant for years, even though it is a biennial by nature, thus keeping any really good thing that shows up in one's cultures, which is not otherwise possible in a group that hybridizes so readily as the mulleins.

Leaving out the hemimeris tribe, which is composed mostly of annuals

or tropical perennials, the chelone tribe, whose member of most interest to the grower of hardy plants, pentstemon, was rather fully examined in these columns a year or two ago, and the euphrasia tribe, which is mostly made up of impossible parasitic plants, we have only a few genera left from the digitalis tribe.

Of these veronica is not only the largest, but is no doubt of most value to gardeners. It is quite impossible to do justice to so large a group of plants (there are more than 200 species) in a single article; so I shall restrict the present observations to a few good kinds that are not generally known, leaving the shrubby ones from the southern hemisphere, the new named varieties and others for another time.

Two gray-leaved kinds, *V. caespitosa*, from Greece and eastward, and *V. canescens*, from New Zealand, are among the most entrancing of speedwells. Disposing of the more difficult one first, let me urge you, unless you live in the colder sections, to try the New Zealander and see how lovely a tiny veronica can be. It makes no more than a film of scarcely visible threadlike stems and silvery leaves and then during the summer months hides that film under countless silvery-blue and white flowers; the entire plant is made especially for the gardener who delights in that sort of thing, which also brings cultural problems. As to the latter, it seems (I say "seems" for it does poorly in my dry garden, being too delicate for our cold winters) to require a perfectly drained soil with always a supply of moisture at the roots. The other, *V. caespitosa*, is better fitted to cope with conditions in the ordinary garden, asking for good drainage, as is the case with most gray-leaved plants, and a little leaf mold in the soil to carry it through dry weather. Given that, it should make pleasing tufts of gray wool, from which spring 2-inch stems bearing quite large rose-pink flowers for six weeks or more, commencing in late May or June. These two, with *V. bombycina*, which is spoken of in literature as having pink or reddish flowers, but has turned out to be pale blue as I have had it, are among the



choicest of small veronicas and will give most amateurs a new conception of speedwell beauty.

A few years ago *V. filiformis* was fairly well represented in American lists. Now one rarely sees it mentioned. Why that should be is not easily understood, because, although it is a romper that covers ground at an incredible speed, it is so light and airy that it does little harm except among the most delicate plants and its ease of culture in any sunny spot that is not desert-dry makes it a plant for the masses. Its height of an inch or two, coupled with its airy nature, fits it for many roles in the garden.

Although *V. repens* comes from Corsica and, unlike so many plants from that island, it is perfectly hardy here, in my estimation it is one of the best of the perfectly prostrate speedwells for general cultivation. It does well in almost any sunny or partly shaded situation, making a flat mat of small leaves on which sit its small milk-white flowers, the entire plant not much over an inch high. So it makes a splendid cover for small bulbs, for clothing flat or inclined surfaces in the rockery, etc. Take *V. repens* and multiply all its parts by three and you have a gardener's conception of *V. Allionii*, except that in this case the flower color is dark blue. The last-named, being rare in gardens, should be good property in the hands of the neighborhood nursery. It has much in its favor, including ease of culture as well as its rareness.

Sometime when more space is available I should like to tell other experiences with the small speedwells, but right now the story will be closed with extracts from a letter I had recently from a friend in England, which relates a few good things about a new Bulgarian species, *V. Kellereri*, that may interest readers. "*V. Kellereri*," he writes, "is a mat-maker, its prostrate rooting stems being clothed in dark green leaves, much darker than in the case with *V. repens*, and the entire plant is hidden under a sheet of intense gentian-blue flowers during May and June. The stems are never over three inches tall and more often than not are less than that, making a good mat plant for the sunny rockery. And the best part of the story is that the plant is easily handled, requiring no more than ordinary attention." All of which is written from the English standpoint and may need some revision

when the plant is transferred to our trying climate, though I should not expect it to be difficult. I am told that seeds will probably be available next autumn from two or three sources and am relaying the information to interested readers.

There is not room for a survey of the tall-growing varieties; so no attempt will be made at this time to cover the subject, but I should like to make a plea for one of the generally available kinds, *V. gentianoides*. Just why this 15-inch beauty has never caught the eye of American gardeners is not easily explained, unless it is to be traced to the fact that few neighborhood growers have it to show to their customers. And there is no denying the fact that that process is the big educating factor in the plant world. The rosettes of gentian-like leaves, which spread from the old plant by means of creeping roots, are ornamental in themselves, making a pleasing ground cover throughout the year, but the plant is really imposing for almost two months in late spring, when it sends up 15-inch spires set with large pale blue flowers. It is an accommodating plant, doing well in either sun or shade in almost any soil that is not desert-dry, and is rapidly increased by division. It is a recommended item for the neighborhood grower.

I had meant to include a rather full examination of the genus *synthyris* at this time, but space is exhausted. A brief discussion of the subject will, however, be found in the series on native plants which ran in this column two years ago and a fuller account is contemplated later.

#### HIGHWAY PROJECTS.

Bids were received by the state highway commission of the state of Iowa, April 25, on nursery stock to be used on highway beautification projects in the counties of Floyd, Jefferson, Jasper, Jones and Bremer. The specifications called for 2,309 shrubs, 1,214 vines and ground covers and 856 trees.

Bids were received by the department of highways and public works of the state of Tennessee, April 21, on nursery stock to be used on a highway beautification project in the counties of Warren, Coffee and Lawrence. Specifications called for 497 trees, shrubs and vines.

#### NOTES FROM A NURSERYMAN'S WIFE

Some time ago we suggested streamlining the awkward names which are all that a nurseryman has to use. "The nurseryman is a horticulturist," we say; "he specialized in landscape architecture at the agricultural college; he sells nursery stock"—all terms which are either too long to write, too mouth-filling for comfort or too inexact in meaning. The head of the house agreed in theory, but when we ran to him waving the November Ladies' Home Journal and showed him the sentence, "We were not financially situated, to put it nicely, to hire a landscaper," did he greet it with acclamations and huzzahs? No, he just laughed and said, "Humph, some word—'landscaper.'"

But that was nothing to the time the evening paper announced that the local high school grounds had been "shrubberized." His laugh had a hollow sound then, and the "humph" was more like a groan.

\* \* \* \* \*

The almanac says that October 31, 1635, Connecticut's charter was concealed in the oak. The Charter Oak stamp, to our eyes, is one of the most attractive the United States has ever issued. (The 2-cent Arbor Day of 1932 is another adhesive to interest nurserymen.)

\* \* \* \* \*

The biggest oak story we have ever heard comes via the New Yorker and Reader's Digest.

It seems that a fine old oak stood right in the way of a new wing which was to be built at the San Simeon estate of William Randolph Hearst. Since his father's favorite seat had been under its branches, Mr. Hearst wanted that tree saved. Tree surgeons shook their heads—the root system was so widespread that the tree could never be moved. Construction engineers were then called in, and among them they evolved a way. Trenches were dug, a wide circle of cement was poured to enclose the tree, and finally the whole thing—tree, roots, soil and cement a tremendous mass weighing tons—was hoisted with derricks and cranes and moved to the top of a hill, where presumably it still flourishes. The bill? \$150,000—and when Mr. Hearst saw it he smiled!

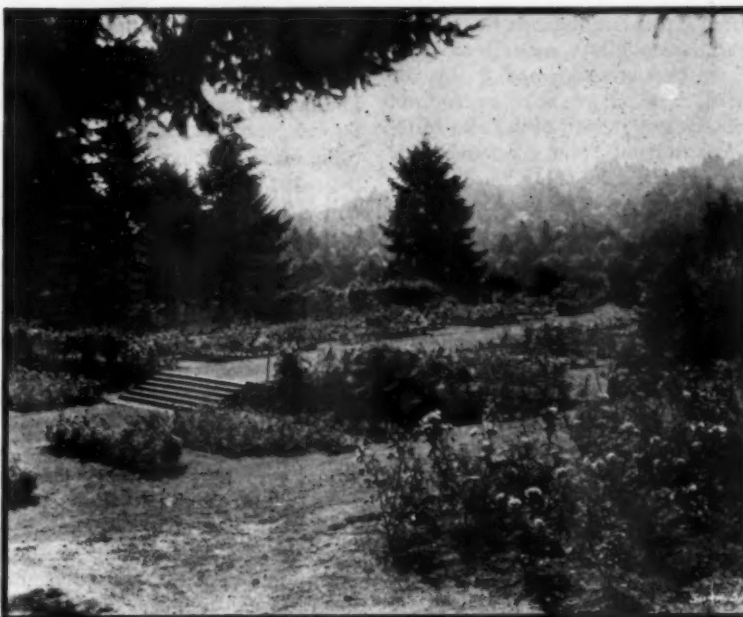
## Portland Rose Gardens

*International Rose Test Gardens in Municipal Park Will Furnish Interesting Feature of City Tour by A. A. N. Members at Convention*

Among the interesting and beautiful sights of the city of Portland, Ore., to be viewed by members attending the convention of the American Association of Nurserymen, next July, will be the international rose test gardens, located in Washington park.

Sunday, July 9, the members will leave the hotel about 1 p. m., for a tour of the city by bus. The tour will include the better residential districts, fine landscaped gardens and one of the two golf courses located in the city. The route will continue through the city to Mount Tabor park, the site of an extinct volcano, located in the center of the east side residential district. This park, at an elevation of 645 feet, affords a beautiful view of the entire city as well as the snow-capped peaks of the Cascade range.

The tour will then follow the west side of the Willamette river and terminate in Washington park, where the international rose test gardens are located. The gardens were started in 1917 with the idea that the hybridizer of new roses, if his creations prove of benefit to mankind, is entitled to some reward other than that gained through the commercial superiority of his creation. Here the roses are subjected to various tests and judged ac-



Municipal Rose Garden in Washington Park at Portland.

cordingly, and those with the highest ranking are awarded medals or certificates of merit.

The gardens, which are in charge of Fred Edmunds, curator, have been officially selected by the American

Rose Society as the testing ground for the Pacific northwest, and all awards made in this connection are recognized by the society.

After a thorough consideration of various locations for the gardens, Washington park was chosen because of its elevation at 300 feet above sea level, its protection from damaging winds, natural drainage, superior soil and general conditions that would provide adequate soil and climatic conditions for testing roses for the Pacific coast section.

The testing grounds are divided into three groups of beds, and growers wishing to have roses tested send six plants of each variety. In the first bed the plants and soil are sprayed to control insects and other pests and diseases, but no ground treatment is given. Full pruning, disbudding and intensive cultivation and feeding are given the second season after planting. The purpose of this group is to produce high-class foliage and blooms.

In the second bed the roses are sprayed and otherwise treated for insects and other pests, but not for diseases. Soil feeding with chemicals for prevention, control and cure of dis-



Trials in the International Rose Test Gardens at Portland.

case is carefully tested. Roses in the third bed are sprayed and otherwise treated for insects and other pests, but no treatment of any kind is given for disease. Hand-picking of leaf rollers and similar insects is the only precaution taken against pests. The purpose of this treatment is to test disease susceptibility, natural development, characteristics and quality of bloom without intensive cultivation. The natural growth of bush and foliage as to habit, form, color and vigor are also determined.

So great has been the demand for space in these gardens that nearly every year since their inception they have been increased in size, and finally in 1929 the gardens were doubled to accommodate all varieties proffered. In 1938 over 168 varieties were tested, from well known growers in Holland, France, Rumania, England, Australia, Spain, Ireland, Scotland, Luxembourg and Germany, as well as America.

Also located in Washington park are the Royal Rosarian gardens, the Evergreen Bowl, where concerts are held, and the general rose plantings of the park. After viewing the gardens and listening to a band concert in Evergreen Bowl, the party will be driven back to the hotel about 7 p.m.

#### ROSES AT HEMET.

Some thirty-two years ago a young man stepped from the train at the little red depot at Hemet, Cal., with \$10 in his pocket and an idea. The man was Charlie Howard, and since that time the idea has blossomed into an enterprise which ships about a million rosebushes annually.

It was with the advice and under the guidance of Ethan Allan Chase, formerly of Chase Bros. Co., Rochester, N. Y., and late of Chase Nurseries, Riverside, Cal., that he learned the rosebush business—advice and guidance that has stood him well throughout the years.

Selection of Hemet for the original five acres was not just chance, nor was the idea of specializing in rosebushes alone. Hemet's 1,700 feet of elevation and climatic conditions from the first gave promise of producing healthy, vigorous plants, and the cold November nights foretold of well matured plants at shipping season. At the same time the dry desert conditions would help combat storage rot and mildew. Mr. Howard believed

these ideal conditions would help assure the success of rosebush specialization—he wanted to do one thing and do it well. How fortunate it was that Hemet also proved to be free of any black spot, the spores of which play such havoc in all storage cellars when brought in with infected plants!

Soon after the business was established, the firm was joined by Ernest Lindquist, trained in horticulture in the old country, and another step was being made in doing one job well.

In 1924 a temporary setback occurred when the storage and packing sheds were burned to the ground, but the improvements in the new building more than made up for the loss. By means of the new air-controlled cellar, fresh cold dry air was available for the plants every morning just before daylight. In addition, a cold-storage room was provided for those varieties needing special storage facilities. In the same year the firm was joined by a young man whose interest in rosebushes and knowledge of them have since that time made him well known to the trade. Keith Monaghan now spends six months every year covering the country, talking rosebush problems with the trade and selling the one specialty, rosebushes.

Another step forward was the method adopted for growing the understock. Instead of placing hardwood cuttings directly in the field, 22,000 square feet of propagating sash were provided, where the cuttings are thoroughly rooted before being placed in the field.



Keith Monaghan.

From the original five acres of land the holdings of the company have expanded to many times that acreage, and late in 1938 it was necessary to invest in an additional 500 acres of land. The company believes that by having sufficient acreage to rotate the crops, the likelihood of diseases and pests is reduced to a minimum, and healthy plants are assured. Cover crops are used extensively to rebuild the soil for future crops.

Naturally a part of rosebush specialization has included a study of better packing and transportation methods. Ernest Lindquist, vice-president of the company, gives his personal supervision to every order that is packed. This personal care plus sphagnum moss of the right dampness, sturdy boxes and pre-iced cars get the rosebushes started on their way in the best possible condition. Reliable cold-storage firms at eastern car-breaking points hold the bushes until the customers are ready for them.

The Howard Rose Co. will be represented at the convention at Portland next summer, ever ready to learn the special desires of all customers—another part of doing one job and doing it well.

#### HYPERICUM HOOKERIANUM.

A shrub on the grounds of the New York agricultural experiment station that has received many favorable comments, according to L. M. Van Alstyne, is the comparatively unknown St. John's-wort, *Hypericum Hookerianum*, sent out for trial by the bureau of plant industry. It is a compact, rounded globe bush about three feet tall and as great in diameter. It has slender branches and long lanceolate leaves that are dark blue green above and glaucous beneath. In July it begins to open its buds and from then until September it is never out of bloom. The bright yellow blooms are at least two inches across and have the characteristic bunch of yellow stamens common to all hypericums. It seems to be perfectly hardy here, something which cannot be said of the other hypericums of this type. Since it is never woody, it may be used in the perennial border. It is better still when used as an "interest" plant in the border shrubbery, as it is used on the station grounds. It prefers a little shade and propagates easily from seed and from softwood cuttings.



# Business Ethics of Shade Tree Work

*Application of Ethical Practices by Arborists and Suggestions for Code, Told Southern Shade Tree Conference—By Norman Armstrong, White Plains, N. Y.*

The botanists have a nice little name for a certain plant family; it is urticaceae. I, and I suspect most of you, know the members of this family by a more common and more easily pronounceable word, namely, nettles. The range of these plants is so wide that probably all of you are familiar with them and their character. They are common in my native state, Ohio.

Youngsters there, traveling to the swimming holes, fishing in the creeks or playing in the fields, learn early of the discomfort resulting from contact with the many small spines on the nettle. They also learn that if one grasps a nettle quickly and firmly with the hand it does not sting. This subject I am to discuss is like the nettle in that it should either be avoided, or grasped firmly and fearlessly. It is obvious that I cannot avoid it; therefore I shall try the other method. I only hope that I have classified it correctly as genus *urtica* and that it does not prove to be a *gleditsia*. To grab a double fistful of honey locust thorns wouldn't be exactly funny.

Webster's dictionary defines "ethics" as follows: Moral principles, quality or practices; a system of moral principles.

Also, according to Webster, "ethical" means: Professionally right or befitting; conforming to professional standards of conduct.

Perhaps because when Webster compiled his dictionary business was not what it is today (maybe I should say, what it was ten years ago) his definition mentions professions, but not business. Maybe it was that in those days there were no ethics in business. Today we have business, as well as professional, ethics.

The care of trees, or arboriculture, conducted on a commercial basis, is often referred to as a profession. It should be a profession, but in my opinion, it is at present just a business.

In reading Webster, I neglected to look up the word "profession," but my understanding is that it is a business in which knowledge is a principal ingredient of the product dealt in and

that this knowledge is reflected in the price at which the product is sold. As with a physician, his fee may be twenty-five per cent for medicine or treatment and seventy-five per cent for knowledge to diagnose and advise.

It will be said that the same conditions hold true in the treatment of trees. They should, but seldom do. Ignorance rather than knowledge is a principal ingredient of tree service. I say this not in a knocking sense, but as a plain statement of fact. And, as one in the business, I say it without shame. When one considers the age of the medical profession, the centuries of study, the hundreds of millions of dollars spent for medical research, the thousands of medical schools, and then considers the youth of commercial arboriculture, the few years of study, just a few thousands of dollars ever spent for research and the fact that not one college or university in the United States has a complete course to instruct in the care of shade trees; when one weighs these items and considers how much the medical profession does not know, is it any wonder that we who practice arboriculture have such a fund of ignorance at our disposal? It is more to be wondered at and, I believe, more to our credit, that we have learned as much as we have.

The man who engages in commercial arboriculture must begin with little or no specialized knowledge, study as he works and earn some extra money before he can spend for research. His charges are of necessity mostly for work produced, not for knowledge, and are therefore small in comparison with professional charges. Profits are small even when compared to those of many businesses, and surplus that can be used for research is slow in accumulating. It is difficult to attain a position where charges can be made on a professional basis and only a few have attempted it. Some of those have done it on their nerve, not their knowledge.

This, I trust, explains why I say ours is a business, not a profession.

I hope the day is not far distant

when the colleges and universities will teach arboriculture, and young men from these institutions will enter our business with the education and training to enable them to become professional and to raise the vocation to the plane of a profession.

Meanwhile, we who have come along the hard way are trying to raise the level of standards and practices—and with some success.

Ethical practice in arboriculture has two principal applications. One is in the relations of the arborist with his competitors. The other is in his relations with his clients.

Let us consider the former. Twenty years, or even fifteen years ago, if there were any ethics in this business, they were kept well hidden. It was common, in fact nearly universal, practice for an arborist, or his representative, when finding the workmen of a competitor employed on an estate, to search out the owner and do everything he possibly could to have them thrown off. The owner was told he was employing tree men who were incompetent or unscrupulous, or both, and that he should discharge them and employ the learned and righteous gentleman who was doing the talking. Even today this unethical practice is sometimes encountered, but it is rare.

When one made a call for the purpose of soliciting business and found that the trees on the estate were, and had been for years, in the care of a competitor, the common practice was to criticize the work, the workmen and the owner of the competing concern. This practice has not been discontinued by any means, but steadily grows less. As an example of what now sometimes happens, one of my clients a short time ago told me that a man called at his door, and when he answered the bell, said: "I called to talk with you about the care of your trees, but while waiting here I noticed that there is spray material on the leaves of some of them. Do you mind telling me who does your work?" I told him, "Armstrong." He said, "Well, he is a fine fellow and he knows his business, so I guess there is nothing here for me." Now

that chap may have been wrong in his judgment of Armstrong, but he certainly made a hit with my client. And if I ever fall down on the job I know who will get it. I wish such occurrences were more common—some day they will be.

Just a few weeks ago a client in North Carolina told me that while solicitors called upon him often, it had been at least two years since one had used knocking tactics in an effort to get work, whereas prior to that it had been almost universal. He commented upon how much all tree men have, as a result, gone up in his estimation.

One unethical competitive practice has grown rather than diminished in recent years. I refer to price cutting. Now I do not consider it unethical to charge less than others. Every concern or individual has a moral right to set any value he wishes upon the service he renders. I do not consider it unethical to quote a lower price under certain circumstances than quoted under different circumstances. But to make one price when there is no competition and another, and lower one, when there is competition is unfair to both the competitor and to those who pay the full price.

Recently a representative of one tree service company told me his concern would not cut prices heavily against strong competitors, but would cut to any depth to take business away from weak concerns, on the theory that if deprived of enough business the weak concerns could be forced out of business. Isn't that a beneficent and constructive attitude?

In one instance a concern bid 12 cents per gallon on material applied on a spraying operation, another bid 10 cents, a third 9 cents. The first then bid 8 cents, the second 6 cents and the third 5 cents. The auction closed by the original bidder's taking the job at 4 cents, just one-third of his original figure. Was he trying to rob the client at 12 cents, did he cheat on gallonage or materials to make a profit at 4 cents, or did he do a good job and take a loss in order to prevent a competitor from getting a job? In any case, what do you think of his ethics and business judgment?

Perhaps worse than the sin involved in all of these various unethical practices mentioned is the stupidity, the failure to realize that

they injure every company and individual in the business, and, most of all, they injure the one who practices them.

I have talked to many arborists about price cutting. They usually say they do not want to do it, but they are forced to by tactics of their competitors. They think there should be regulatory laws and policing by the states to prevent such practices. I am opposed to such laws. We have too many laws and regulations. We should be more free to act as individuals, and it is as individuals that we can quickly and effectively stop price cutting. It's the simplest thing imaginable. All that is needed is for each individual to quit doing it. There is just one person to regulate and that is one's self. If one is too weak to regulate himself, he has no right to ask that others be regulated.

There is one unethical practice that falls in both classifications I have mentioned. That is the payment of fees or commissions to employees of the client, his superintendent, gardener, etc. This is merely bribery. It is quite commonly practiced, but is not universal. Many arborists do not pay it, and many superintendents and gardeners will not accept it.

Unethical practices applying to client relationships include attempting to frighten owners into having work done by representing that a serious ailment is present when it is not, doing unnecessary work just to increase the size of the job, doing inferior or insufficient work in order to work to a price, and other similar items.

I would not have you believe that these things I mention are standard practices and that all arborists are crooks. We are on the average much as other men, neither better nor worse. However, all these unethical practices do exist to a greater or less extent in the business, and every arborist is familiar with them and with others I have not mentioned. If they did not exist, no discussion of ethics would be pertinent and no code of ethics would be needed.

The best code of business ethics of which I have knowledge is that of the Rotary Clubs. So far as I know, the only such code ever formulated and adopted by a group of arborists is that of the American Society of Arborists. I have tried to combine these two, and the result follows:

"In every position in business life, in every responsibility that comes before me, my chief thought shall be to fill that responsibility and discharge that duty so when I have ended each of them, I have lifted the level of human ideals and achievements a little higher than I found it."

In view of this, it is my duty as an arborist:

1. To consider my vocation worthy and as affording me distinct opportunity to serve society.
2. To improve myself, increase my efficiency and enlarge my service, and by so doing attest my faith in the fundamental principle that he profits most who serves the best.
3. To realize that I am a business man and ambitious to succeed, but that I am first an ethical man and wish no success that is not founded on the highest justice and morality.
4. To hold that the exchange of my goods, my service and my ideas for profit is legitimate and ethical, provided that all parties to the exchange are benefited thereby.
5. To use my best endeavors to elevate the standards of my vocation, and so to conduct my affairs that others in my vocation may find it wise, profitable and conducive to happiness to emulate my example.
6. To conduct my business in such manner that I may give a service equal to or even better than my competitor, and when in doubt to give added service beyond the strict measure of debt or obligation.
7. To be cordially ready to exchange information and experience with fellow arborists.
8. Not to solicit the clients of another arborist from the date upon which he secures an order until the work covered by such order is completed, and, when soliciting business and finding another arborist regularly employed by the prospective client, to confine my comments to the services of my own organization and refrain from criticizing the work or practices of others.
9. Never falsely or maliciously to attempt to injure the reputation of any arborist.
10. Not to reduce charges below the customary level as a basis for soliciting work in competition.
11. Not to offer employment to an employee of another arborist without first consulting the employer and advising him of the intention.

12. Not to offer payment directly or indirectly to architects, landscape architects, superintendents, gardeners or any other employees of clients or prospective clients.

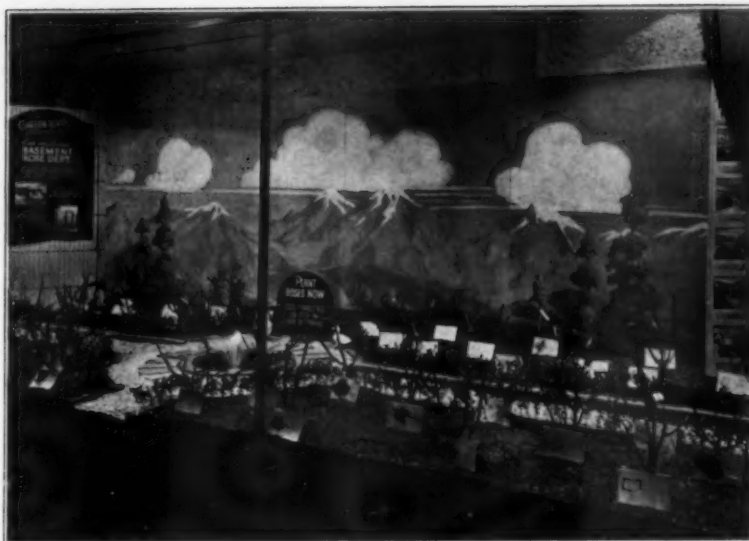
The substance of that code is faith in the golden rule and belief that a well established reputation for doing excellent work in an efficient manner is an arborist's best salesman. Its adoption by every arborist and his adherence to it would quickly eliminate the evils I referred to in this talk, elevate the business of arboriculture in the mind of the public and place the ethical standards of the business upon a plane as high as that of any profession.

I offer it as a code for every arborist and hope for the day when it is universally followed. When and if that day comes, it will mean increased income and profit for every arborist. It is not unselfish to practice ethically. It doesn't cost anything—no business is lost. On the contrary, it increases business and permits the full profit on all the business done. Universal adherence to such a code of ethics would result in a great in-

[Concluded on page 29.]

#### WINDOW ADVERTISING.

The nurseryman located near a large city has a problem in drawing prospective customers to his location on the outskirts to make purchases. To



Garden in Window Helps Sales of Rose Plants.

advertise in a metropolitan daily is expensive because of the large waste circulation. A mailing list of even fair prospects is difficult to compile. So he loses many buyers to department stores who would have been pleased with freshly dug stock from his nursery.

Some nurserymen have endeavored to overcome this obstacle by opening a store in the city during the spring season. With every experienced hand needed at the nursery during the rush, that solution may not appeal to many. In these days of numerous vacant stores there is another opportunity

available. No building agent likes to have the bare blank windows of a vacant store at street level point to passers the lack of demand for his space. Hence short-term leases are given to firms that can be moved upstairs to office space when a desirable store tenant is obtained. Occasionally a window space is rented to a reputable merchant in a neighboring location, just for the display of his wares.

If the nurseryman can find a conspicuous store, preferably on a street leading to a railroad station frequented by suburbanites, he might obtain some effective advertising at small cost by renting the window space and staging an attractive display of his merchandise in the window. By putting some shrubs or small trees in a warm place to force out the leaves, he can supply that touch of spring that will awaken interest. A poster announcing his location, and perhaps a road map marked with the route to it and pasted on the window glass, will send buyers in your direction.

On this page are illustrations of recent garden windows. That of rose plants appeared in the downtown store of the Germain Seed & Plant Co., Los Angeles, Cal. The other is probably more elaborate than most nurserymen would care to attempt; it shows a setting of shrubs and flowers provided for the display of merchandise in the corner window of an apparel store.

Displays decidedly less pretentious than these should provide the nurseryman with a downtown signboard if he can find a suitable vacant window.



Spring Garden in Window Is Signboard for Nurseryman.



## Peach "X" Disease

*Mysterious Malady May Be Checked by Destruction of Chokecherry in the Vicinity of Peach Orchards*

Research at the Connecticut experiment station, New Haven, has indicated that the mysterious "X" disease of peach trees is a virus disease, and it is probably in the same general classification as peach yellows, little peach and peach mosaic.

The disease, which now occurs in eastern New York, Connecticut and eastern Massachusetts, will in a short time reduce a healthy orchard to uselessness. Identification of the disease is made from the leaves and fruits of the infected trees. Unless the infection has reached an advanced stage, the trees appear to be normal and produce new leaves and shoots until about the middle of June. At this time small yellowish areas appear near the base of the leaves. These areas increase in number and size until the entire leaf shows a conspicuous red and yellow discoloration. The leaf becomes dry and brittle, and irregular patches of the blade fall out, giving the foliage a tattered appearance. The tip leaves of an infected tree seldom fall and are one of the positive means of diagnosis.

The fruits of an infected tree usually shrivel and fall soon after the leaf symptoms appear. In some cases the fruit remains on the tree and ripens, but it is bitter to the taste and there is no development of the pit, which is small, shrunken and infertile.

The diseased twigs and branches do not always die. Many of them remain alive after the first defoliation and present an apparently normal growth the following spring, but the disease soon becomes apparent again and the tree loses its leaves.

The disease is not always discernible over an entire tree, but it may show on only a few twigs and spread irregularly over the tree. As long as the foliage does not develop characteristics of the disease, the healthy portions continue growth and bear fruit. It is not known how long a tree that is infected with peach "X" can live, as none of the trees under observation have died. However, the infected trees are soon rendered valueless.

So far as is known, there is no variety of peach tree that is resistant to the disease. It has been the opinion that fast-growing trees are more susceptible to the disease than slow-growing ones, but this may be due to the fact that the symptoms are not shown so plainly on the less vigorous trees and the disease cannot be recognized immediately.

Investigations showed that the chokecherry, *Prunus Virginiana*, exhibits some of the same symptoms as the infected peach trees. These infected chokecherry trees were always found in the proximity of an infected orchard, and if there was no infected chokecherry in the immediate vicinity the peach orchard remained healthy. Experiments of infecting healthy peach trees with the disease from the infected chokecherry indicated that this tree was the host for the disease, and it was further determined that the disease was probably spread by some insect vector.

These facts have made it obvious that to control the disease it is necessary to destroy all chokecherry trees in the vicinity of orchards. Complete destruction of the entire tree and root system should be practiced. Any remaining roots will probably send up new sprouts and soon the infection will be back. Experiments with different methods of eliminating the chokecherry have shown that spraying

with compounds of sodium chlorate is the most effective.

### MINNESOTA OFFICERS.

In electing Rudolph N. Ruedlinger as its secretary, the Minnesota State Nurserymen's Association hopes it has found an organization man of the caliber of his father. C. N. Ruedlinger was president of the association for two years and headed several other trade bodies, having been a notable figure in local activities prior to his death in 1933. Coming to this country from Switzerland at an early age, the elder Ruedlinger became city forester of Minneapolis after having held that position at Hartford, Conn. Subsequently he established a nursery and landscape business, which was handed on to his sons Rudolph and Arthur, who have spent all their life working with their father in his occupation. They own and operate thirty-two acres about three miles from the Minneapolis city limits, where a complete line of stock is grown, mainly disposed of in retail landscape work. R. N. Ruedlinger was for two years vice-president of the Twin City Nurserymen's Association, a local landscape group.

Portraits of the president and vice-president appeared in the December 15 issue. John K. Andrews, stepping up from vice-president, has long been well known, with his brother C. H. Andrews, for the fruits and berry plants distributed by the Andrews Nursery Co., Faribault, Minn. The new vice-president is associated with his father in the Bailey Nurseries, at Newport, Minn., and served as secretary of the Twin Cities Nurserymen's Association.

The reelected treasurer, Harold S. Reid, has avoided the camera since he graduated from the University of Illinois in 1917. The landscape department of that institution and Holm & Olson, Inc., St. Paul, are responsible for his horticultural education. He began pulling weeds as a youngster in the Holm & Olson nursery and he returned there after the war to the practice of landscape gardening. Upon graduation from college he enlisted in the navy and served as a naval officer after training on the good ship "Concrete," commonly known as the municipal pier at Chicago. His success in collecting dues has made him perennial treasurer of the Minnesota State Nurserymen's Association.



R. N. Ruedlinger.

# Cash Payments for Tree Planting

*Revision of Soil Conservation Program of Cash Payment to Farmers Would Stimulate Woodlot Planting—By John K. Andrews, President, Minnesota Nurserymen's Association*

Through the present agricultural conservation program farmers may receive \$7.50 per acre by planting 650 forest trees per acre, or 300 trees for windbreak, if the trees are protected and cultivated in accordance with good tree culture. They may receive \$3 per acre for maintaining a good stand of at least 300 trees per acre planted between July 1, 1935, and July 1, 1939, by cultivating sufficiently to control other vegetation, protecting from fire and livestock and replanting if necessary.

They may receive \$3 per acre for improving a stand of forest trees by cutting weed trees and thinning or pruning other trees so as to leave at least 100 potential timber trees of desirable species per acre, with a minimum diameter of six inches, or at least 200 potential timber trees of 2-inch diameter, well distributed over each acre of woodland, provided the county committee approves the area on which such practice is to be carried out and such area is not grazed and is adequately protected against fire.

They may receive 15 cents per acre for restoration by nongrazing until November 1, 1939, of fenced farm wood lots normally overgrazed.

These cash benefits just enumerated, which farmers may receive, indicate that farm forestry is considered a worthy practice and one that should be encouraged by cash benefits. The fact that is so recognized is a gain for conservation.

Unfortunately, this recognition is the principal gain so far, because in actual application of the present conservation program the total amount any one farmer can earn is limited by other features of the act, and this limited amount is more easily obtained by carrying out other practices under the act, rather than attempting to earn it by carrying out the forestry requirements.

For instance, in Rice county, Minnesota, the soil-building allowance or limit on an average farm runs around \$30. That is, if the coöperator carries out certain specified practices, he can earn about \$30 in soil-building cash payments. This cash payment

may be earned in various ways. For seeding alfalfa \$3 per acre is allowed; for seeding clover, \$1.50 per acre. If certain amounts of fertilizer are applied, \$1.50 per acre is allowed. For carrying out certain erosion-control practices, varying amounts from 15 cents per acre to \$1.50 per acre are allowed. Then there are the forestry allowances, as stated above, for tree planting.

Since the amount the average farmer can earn is limited to the comparatively small amount of \$30 and since most farmers normally seed at least eight or ten acres of clover and alfalfa, for which \$3 per acre is allowed, he gets his full allowance that way and would not receive any more payments even if he were to carry out some of the forestry practices for which payments might be earned. Consequently, the payments set up for tree planting under the present act are largely ineffective, so far as being an encouragement for tree planting is concerned.

The ineffectiveness of the present act as any stimulant to farm forestry is now quite generally recognized, and conservation-minded people are asking for a revision of the act. They feel that tree-planting payments for actual performance should be provided for by a separate, earmarked fund, so that farm forestry payments would be assured to planters and not limited by the regular soil-building allowance, as in the present act. In other words, if a farmer carries out the forest practices for which cash payments are set up, he should receive such payments in addition to any payments he may have earned under the regular soil-building allowance by seeding clover or by carrying out other prescribed farming practices.

At the recent annual meeting of the Minnesota state farm bureau, the following resolution was passed: "Reforestation and tree planting—Recommends that national farm programs set up special allowances so farmers may earn money by planting forest trees, windbreaks and shelter belts. Also urges that payment for improving a stand of forest be continued as part of any farm act."

Many farmers are not on a farm long enough to benefit from tree planting as such. They cannot afford the expense and work unless they get a cash benefit to help cover the cost of the trees, planting and annual maintenance. It has been suggested that the present \$7.50 allowed for planting 650 forest trees per acre, or 300 windbreak trees, as set up in the present 1939 program, be increased to \$15 and that the other forestry benefits be retained as they are designated in the 1939 program. If payment rates such as these are made available to farmers and such payments are in addition to, and not limited by, other phases of the agricultural conservation act, farmers and other landowners will be encouraged to, and can afford to, plant farm windbreaks and farm wood lots wherever possible.

Since more farm tree planting is essentially a long-time conservation practice and since its greater application would automatically retire surplus crop acreage, conserve soil, build up watershed, game refuge and cover, it can well be regarded as a problem with which the nation as a whole is more concerned than the individual farmer who happens to be living on the land at any particular time. Considering the matter from this viewpoint, it is right and proper for the federal government to assume the responsibility for the costs of the benefit payments necessary to encourage farm forestry. It need not be looked upon as subsidy, but rather as a cost of conservation in one of its fundamental phases. Some of the funds allotted to flood control, soil-erosion control and wild life protection might well be used to help increase cash payments for tree planting as above suggested.

Toward this end, all citizens, and especially such groups as garden clubs, the Izaak Walton League, the Game Protective League and others interested in conservation, would well lend their aid in securing a revision of the present A. A. A. farm program to provide a special farm forestry fund for the payment of more definite and more adequate cash benefits for farm tree planting.

# Wages and Hours Law

## FURTHER EXEMPTION.

Nurserymen's employees engaged in landscape work may be considered not subject to either the wage or hour provisions of the federal law, states R. P. White, executive secretary of the American Association of Nurserymen, in the light of an opinion from the office of the administrator, by George A. McNulty, associate general counsel, rendered to the National Arborists' Association, March 28. It states that "if the tree surgeons" [employees]—"perform the operations described above" [including the moving and transplanting of trees and plants and shrubs, and other incidental duties] "upon fruit and nut trees and plants, vines, vegetable plants, flowers, shrubs and ornamental trees and plants, we believe that they are engaged in the production, cultivation and growing of horticultural commodities and thus exempt from both the wage and hour provisions of the act."

It is to be understood that an opinion from the administrator's office does not confer immunity upon employers from private suits, under the present terms of the act, though there is an amendment before Congress to give a legal status to the administrator's opinion.

Nurserymen's packing house employees handling or packing purchased stock for market would also be exempt if amendments to the law are passed now sponsored by farm organizations and introduced by Senator Miller, of Arkansas, as S-2022, and Congressman Barden, of North Carolina, as H. R. 5374. These are known as the Miller-Barden amendments and would give total exemption from both wage and hour provisions of the law to a long list of agricultural industries including "handling, grading, transplanting, packing or packaging of nursery and other horticultural and floral stock for market." This exemption would hold irrespective of whether the stock was grown in the nursery or purchased from other nurseries. Secretary White believes that nurserymen should support the Miller-Barden bills, along with other agricultural organizations, rather than the Norton amendments contained in H. R. 5435, of which report was given last month.

## APPROVE AMENDMENTS.

The House labor committee April 25 approved a series of amendments to the wage-hour law to liberalize its application to agricultural labor and grant numerous exemptions.

With several last-minute revisions, the committee approved an amendment to the agricultural section which would permit workers engaged in certain specified operations to work sixty hours weekly throughout the year and exempt them from all regulation as to hours for a total of fourteen weeks in any year.

Workers engaged in so-called "first processing" of fresh fruits and vegetables, including washing, grading and packing prior to further processing, would be granted total exemption.

Before adopting the agricultural amendment, the committee voted down a proposal by Representative Barden to afford all agricultural labor complete exemption from both the hours and wages provisions of the law.

There was some conjecture whether Elmer F. Andrews, the wage-hour administrator, would approve the committee's action on the agricultural section. He originally recommended that the specified operations affected be granted a 56-hour week with a 12-hour day, plus the 14-week complete exemption.

So-called white-collar workers receiving as much as \$200 monthly would be exempt from both the wage and hour provisions of the act.

The committee recommended that the administration be empowered to make special provisions for constant wage plans under which workers paid regular monthly salaries regardless of the hours they work would be able to work in excess of the legal work week provided their annual total hours did not exceed the limit.

## OPPOSE TRADE BARRIERS.

Condemning the growing tendency of the states to erect trade barriers as a menace to the nation's economic welfare, a report adopted by the Merchants' Association of New York urges the governor and legislative leaders of that state to do all within their power to cooperate with the Council of State Governments to re-

move present interstate barriers and prevent the erection of new ones.

Agriculture, particularly with respect to nursery products and fruits, is cited, together with the fields of motor vehicle control, taxation and alcoholic beverages, as affected by this type of legislation.

"Under the pressure of economic conditions in recent years," it is declared, "the legislatures of many states have passed various laws for the protection of local interests which have the effect of erecting barriers to free trade between states. Frequently these laws have taken the form of tax measures, although their primary purpose was the protection of interstate activities rather than that of raising revenue." B. J.

## MUNICIPAL BARRIERS.

Instead of eliminating trade barriers, a legislative proposal in New Jersey would extend them even to individual municipalities.

Nurserymen would be among those most directly affected by a bill pending before the New Jersey legislature which, if enacted, would impose additional tax burdens on all persons, firms or corporations making deliveries of merchandise beyond the limits of the municipality in which their place of business is located.

Introduced by Assemblyman John E. Boswell, Cape May county Republican, the proposed legislation is listed officially as assembly bill 436. It has been referred to the house committee on municipalities, chairman of which is Assemblyman Horace R. Bogle, Bergen Republican.

Terms of the bill would enable each New Jersey municipality to require a license and license fee from any type of business making deliveries within its borders from a place of business located in another, even though neighboring, municipality.

Under existing New Jersey law a municipality may license and regulate various types of business, if the place of business is located within the municipality. It does not permit one municipality to tax the businesses of another municipality, except in the case of peddlers. B. J.

THE Evergreen Nursery, Wenatchee, Wash., has been established by Irving Edwin.



## CLOSE-OUT SPECIAL BARGAIN LIST

Due to the unusual early spring weather we are having we are offering the following surplus stock at these special discounts for quantity orders this month:

\$ 50.00 to \$100.00.....	5%
100.00 to 200.00.....	10%
200.00 to 300.00.....	15%
300.00 to 500.00.....	20%
500.00 and up .....	25%

An additional discount of 5% and free packing for cash with order. Net June 1. This discount applies to stock offered in this list and booked this month. All stock guaranteed to be in first-class condition and good quality. No order accepted for less than 50 plants in any variety or grade except trees 5 to 6 feet or larger and not less than 10 of this size at this discount. Wire order Western Union collect for orders of \$100.00 or more.

### Hardy Deciduous Flowering Shrubs

#### ALTHEA. HIBISCUS SYRIACUS.

Roses, seedlings, single flowers.

	Per 10	Per 100	Per 1000
12 to 18 inches, S. ....	\$0.50	\$4.00	
18 to 24 inches, S. ....	.60	5.00	
2 to 3 feet, S. ....	.80	7.00	

#### CORNUS AMOMUM. Silky Dogwood.

#### CORNUS SANGUINEA. Bloody Twig Dogwood.

#### CORNUS STOLONIFERA. Red Osier Dogwood.

	Per 10	Per 100	Per 1000
6 to 12 inches, C. ....	\$0.15	\$1.00	\$ 8.00
12 to 18 inches, C. ....	.30	1.25	10.00
18 to 24 inches, C. ....	.30	2.00	15.00
12 to 18 inches, 3 branches and up .....	.35	2.50	20.00

#### LIGUSTRUM AMURENSE.

Amoor North Privet.

	Per 10	Per 100	Per 1000
6 to 15 inches, L.O. ....	\$0.60	\$5.00	
6 to 12 inches, 2 branches up .....	.80	6.00	
12 to 18 inches, 2 branches	\$0.15	1.00	9.00
12 to 18 inches, C. ....	.30	1.50	12.00
18 to 24 inches, 3 branches up .....	.25	2.25	17.50
2 to 3 feet, 4 branches up	.35	3.00	25.00

#### LIGUSTRUM OBTUSIFOLIUM.

Ibota Privet.

	Per 10	Per 100	Per 1000
6 to 12 inches, 2 branches up .....	\$0.20	\$1.25	\$10.00
12 to 18 inches, 2 branches	.35	1.50	12.00
12 to 18 inches, 3 branches up .....	.30	2.00	15.00
18 to 24 inches, 3 branches up .....	.35	2.50	20.00

Wholesale Only

Established 1887  
By J. H. H. Boyd

#### LIGUSTRUM OVALIFOLIUM.

California Privet.

	Per 10	Per 100	Per 1000
6 to 15 inches, L.O. ....	\$0.45	\$3.50	
6 to 12 inches, 2 branches up .....	.60	4.50	
12 to 18 inches, 3 branches up .....	\$0.15	1.00	8.00
18 to 24 inches, 3 branches up .....	.30	1.25	10.00
RHUS COPALLINA. Shining Sumac.	\$0.75	\$6.00	
18 to 24 inches, S. ....	\$0.10	.90	7.00
18 to 24 inches, Tr. ....	.50	4.00	35.00
2 to 3 feet, Tr., branched	.60	5.00	45.00
SYMPHORICARPOS VULGARIS. Coralberry.			
6 to 12 inches, 1-yr., C. ....	\$0.15	\$1.00	\$8.00
12 to 18 inches, 1-yr., C. ....	.25	1.25	10.00
18 to 24 inches, 1-yr., C. ....	.35	2.00	15.00
12 to 18 inches, Tr. ....	.40	3.50	30.00
18 to 24 inches, Tr. ....	.55	4.50	40.00

### Vines and Creepers

#### CELASTRUS ORBICULATUS. Oriental Bittersweet.

#### CELASTRUS SCANDENS. American Bittersweet.

	Per 10	Per 100	Per 1000
6 to 12 inches, L.O., S. ....	\$0.20	\$1.25	\$10.00
12 to 18 inches, 1-yr. S. ....	.25	1.50	12.00
18 to 24 inches, 1-yr. S. ....	.30	2.00	15.00
12 to 18 ins., Tr., branched	.60	5.00	40.00
LONICERA SEMPERVIRENS. Scarlet Trumpet Honeysuckle.			
Medium lining-out .....	\$0.15	\$1.00	\$ 9.00
1-yr., Tr., No. 1 .....	.60	5.00	40.00
2-yr., Tr., No. 1 .....	.70	6.00	50.00

Write for a copy of our wholesale trade list.

## FOREST NURSERY COMPANY, INC.

McMinnville, Tennessee

### Forest and Shade Trees

#### CORNUS FLORIDA. White-flowering Dogwood.

	Per 10	Per 100	Per 1000
6 to 12 inches, S. ....	\$0.20	\$1.25	\$10.00
12 to 18 inches, S. ....	.30	2.00	15.00
18 to 24 inches, S. ....	.35	2.50	20.00
Special Grafting Grade .....	.55	2.50	20.00

#### LIRIODENDRON TULIPIFERA. Tulip Tree.

	Per 10	Per 100	Per 1000
4 to 6 inches, S. ....	\$0.50	\$3.50	
6 to 12 inches, S. ....	.60	5.00	
12 to 18 inches, S. ....	\$0.10	.90	8.00
18 to 24 inches, S. ....	.30	1.25	10.00

#### PLATANUS OCCIDENTALIS. American Plane Tree.

	Per 10	Per 100	Per 1000
6 to 12 inches, S. ....	\$0.50	\$ 4.00	
12 to 18 inches, S. ....	.70	6.00	
4 to 5 feet, Tr. ....	\$2.00	15.00	125.00
5 to 6 feet, Tr. ....	2.50	20.00	175.00
6 to 8 feet, Tr. ....	3.50	30.00	250.00
8 to 10 feet, Tr. ....	6.00	50.00	
1 1/2 to 1 3/4-inch caliper .....	8.50	75.00	

### Evergreen Grafts

	Per 10	Per 100	Per 1000
2 1/4-inch pots .....	\$3.00	\$25.00	\$250.00

Grafts available the first of May. All Juniper Grafts on Red Cedar understock. Please let us have your reservation order early.

#### Junipers:

##### Varieties:

Chinensis Sargentii	
Virginiana Burkii	
Virginiana Elegantisima	
Virginiana Glauca	
Virginiana Globosa	
Virginiana Pyramidiformis Hillii	
Virginiana Keteleeri	Each
Juniperus Pfitzeriana, 2 1/4-in. pots .....	\$0.15

Prices packed and F.O.B. Sparta, Kentucky, or Tippecanoe City, Ohio.

Nothing sold at retail

J. R. Boyd  
President

### PAINT FOR TREE WOUNDS.

An effective paint for covering tree wounds and pruning cuts can be made by mixing equal weights of raw linseed oil and Bordeaux powder. Growing tissues just beneath the bark may be injured by this mixture, as with creosote and tar mixtures, but this can be prevented by coating the new growth with a preliminary covering of shellac.

Bordeaux paint is one of the most effective fungicides readily available, according to Dr. Rush P. Marshall, tree specialist of the United States Department of Agriculture. However, it should not be used on moist wood, as it will not stick.

When Bordeaux powder is first added to the oil it makes a paste, but after standing an hour or two it will thin to the creamy consistency of heavy paint. The paint is most effective when mixed fresh as used. A thick coating over the wound is desir-

able, and so the paint should not be brushed thin when applied.

THE annual lilac show of W. B. Clarke & Co., San Jose, was held April 14 to 18.

GEORGE KNOBLAUCH, La Salle, Ill., is planning the establishment of a nursery on a 14-acre plot of land.

CONTRACTS for landscaping, totaling \$123,000, have been awarded to the Grand View Nurseries, Mount Vernon, N. Y., by the New York city parkway authority and the state roads commission of Baltimore, Md.

LIFE magazine in its leading article for April 24 featured Lloyd C. Stark, governor of Missouri, as a presidential possibility as a result of his successful fight against the Pendergast machine, showing interesting pictures of his home life.

IT IS reported that the amendment to the California grades and standards act was tabled in the assembly.

GEORGE KERN, of the Wyoming Nurseries, Cincinnati, O., is recovering from an emergency appendicitis operation, which was performed April 6.

A CONTRACT to supply 1,516 oriental plane trees and seventy-eight European lindens, to be used in a W. P. A. project, has been awarded to the Elmsford Nurseries, Inc., Elmsford, N. Y.

THE Central California Nurserymen's Association voted at its meeting April 13, at Niles, to remain a separate unit and not to affiliate with the state association. Toichi Domoto, Hayward, brought an exhibit of tree peonies for the meeting, which was presided over by Richard Plath, San Francisco, president.

# Selected Varieties for Southeast

*New Varieties of Fruits and Ornamentals of Value for Southeastern Nurserymen — By M. E. Gardner, of North Carolina State College*

The problem of selecting varieties is one of the most important confronting the fruit grower and the home orchardist. The same thing is true when selecting suitable ornamental plants for developing and beautifying the home grounds.

Not every new development is suitable for all environmental conditions. This fact makes it necessary that plants be tested for adaptability and desirability before they are offered for sale.

The nurseryman can play a most important part in his field by (1) growing only those varieties which are known to be adapted, (2) careful checking for trueness to name and (3) observing grade standards which are approved by the profession, for nothing is more provoking to a buyer than to find, after he has fruited his plants, that he has a mixture or substitution.

## Peaches.

Vedette is a peach of Canadian origin, a yellow freestone ripening about two weeks ahead of Elberta. The tree is vigorous and productive and the fruit large with good color and quality. This variety should increase in popularity.

Halehaven ripens after Golden Jubilee and Vedette and before Elberta. It resembles Hale in shape, but is about two weeks earlier.

Golden Jubilee is a good early, yellow-fleshed Elberta type, and ripens about two weeks before Elberta. It has desirable quality for an early peach. At present it is recommended only for home market. Under certain conditions it may stand shipment to distant markets.

Gage is a bud sport of Elberta, ripening just after that variety. The fruit is a little larger than that of Elberta. Perhaps it is more resistant to spray burn and bacteriosis than Elberta.

## Apples.

Cortland, a McIntosh type of apple which resembles its parent strongly in fruit characters, does not drop so badly before maturity. It is recommended for the mountain region where a McIntosh type is desired. It ripens September 1 to 15 at Swannanoa.

Melba, an early McIntosh type,

ripens about July 20 at Swannanoa. It is recommended for roadside market and home use.

Close is a variety that has been developed from breeding investigations of C. P. Close, recently retired from the United States Department of Agriculture. For more than thirty years Mr. Close has conducted breeding work to develop good-quality red summer apples. This variety, previously tested as U. S. D. A. 57, ripens with or slightly ahead of Yellow Transparent. It appears to be widely adapted. It is fairly large, averaging two and one-half inches or more in diameter, and is fairly good in quality for both dessert and cooking. The fruit develops a bright, attractive red color when fully ripe and stands high summer temperatures well. For commercial market handling, the fruit will probably require "color" picking at one-fourth to one-third color. The tree is vigorous and productive and bears fairly early. This variety has outstanding promise as an early red apple for both home orchard planting and commercial purposes.

## Pears.

For over thirty years M. B. Waite has conducted breeding investigations for blight-resistant pears of good qual-

ity. One pear, the Waite, previously tested as No. 66131, is outstanding in blight resistance. Under severe test conditions this variety has never developed more than about ten per cent as much blight as Kieffer. The fruit is almost as large as Bartlett, which it resembles in shape. It ripens about with Kieffer. The flesh is smooth in texture and is almost free of grit cells. It is more acid than Bartlett, but is excellent for cooking and canning and fairly good for dessert. The tree is a rather slender, willowy grower and not so vigorous as is desirable. The blossoms produce little or no pollen, and so cross-pollination is essential. Under good pollination conditions it sets well and is a heavy producer.

Scion wood of both the Close apple and the Waite pear may be secured from Dr. J. R. Magness, principal horticulturist, United States horticultural field station, Beltsville, Md.

## Small Fruits.

Cameron dewberry is a seedling of a cross between Young and Lucretia. The plant is vigorous and productive and, while not immune to leaf spot diseases, is more resistant than Lucretia. During seven years in the field it has not been subject to nematode and root rots. In field tests in com-

## LARGE STOCKS OF HIGHEST QUALITY

*We will appreciate your WANT LISTS*

**APPLE — Sour CHERRY — <sup>Bartlett</sup> Kieffer PEAR**

**Hardy Hybrid PLUMS**

**Perfection Currants**

**PRIVET — Amoor North — Ibota — Ibolium**

**Deciduous TREES and SHRUBS**

**Choice varieties of**

**ROSES — VINES — PERENNIALS**

*Ask for our latest Bulletins showing  
grade counts and attractive prices*

**MOUNT ARBOR NURSERIES**

E. S. Welch, Pres.

Est. 1875

Shenandoah, Iowa

*"One of America's Foremost Nurseries"*

# WE WILL PAY

## FOR YOUR TRIAL OF THESE BETTER BUDDING STRIPS

Now you can test Goodrich Budding Strips at our expense. Simply specify the type of budding you do and samples of the correct style will be sent to you at no cost.

Goodrich Budding Strips exert an even pressure over the entire bound area. They are strong enough to hold firmly, yet flexible enough to expand freely with bud growth.

Buds knit faster, stands are healthier and stronger because maximum protection is provided without danger of cutting. Goodrich strips are self-releasing and made purposely to deteriorate at the correct time, automatically loosening on the stand.



Write for  
**FREE SAMPLES**  
THE  
**B. F. GOODRICH CO.**  
Akron, Ohio

**Goodrich**  
*Rubber*  
**BUDDING STRIPS**

parison with Lucretia plants of the same age, Cameron has had twice as many canes, which were one-third longer, and has produced yields twenty per cent larger. The canes and foliage stay healthy and green through the harvest season. The canes, which have only a few weak thorns, are tough and resist breaking. The foliage is slightly thinner and lighter green than Lucretia and persists later in the fall. In season the blooms and fruit are a few days earlier than Lucretia. The berry is a glossy black, with full rounded drupelets, and larger than Lucretia. It is sweet even before becoming fully ripe and has a wild blackberry flavor. The seeds are smaller than Lucretia, and the core is edible. In texture the berry is firm and springy and holds up well in shipment and storage. The drupelets are resistant to turning red and leaking.

Dixie is a red raspberry hybrid resulting from a cross of the Asiatic species *Rubus biflorus* with the American variety Latham. The plant is a vigorous grower, often producing lateral canes twelve to fifteen feet long. It is resistant to most, if not all, the serious raspberry diseases. The canes are productive, yields of over 3,000 quarts per acre having been secured. It has been resistant to drought, and the fruit has maintained its size even in dry years. The fruit is bright red, round and from one-half to five-eighths of an inch in diameter. The berry, although tart or acid, is of good quality, with a strong red raspberry flavor. Because of its high flavor it is exceptionally adapted to preserving and freezing. The seeds are small and inconspicuous. The season of ripening of Dixie is late, being the last of June and early July at Raleigh.

Newburgh and Taylor are both good early reds, especially Taylor, which ripen just ahead of Latham.

Three new 'strawberries will be named and introduced in the near future. If you are interested, file your request for description, adaptability and use. Information will be sent you as soon as it comes from the press.

Some seventy varieties of grapes are being tested at Raleigh, Statesville and Swannanoa. Some of the better named varieties have been added to the recommended list for the state.

A number of seedlings (*vinifera* x *Labrusca*) show promise. These have strong *vinifera* or Old World characteristics. Numbers 10452, 10589 and

**\$27<sup>50</sup>**

**F. O. B.**

**Kansas  
City**



(Patent No. 110-110)

## NURSERY HAND TRUCK

These nurseries are using this truck. It will save labor and make money for you too.

Ambo, Edward W., University City, Mo.  
Baker, Harry Franklin, Minneapolis, Minn.  
Bay State Nurseries, North Abington, Mass.  
Boyd Nursery Co., McMinnville, Tenn.  
Bull's Nurseries, Babylon, L. I., N. Y.  
Burroughs, Mortimer, Clayton, Mo.  
Del Amo Nurseries, Compton, Calif.  
Delmar Nursery, Delmar, N. Y.  
Durham Plant & Nursery, Durham, N. C.  
Eureka Nursery, Hicksville, L. I., N. Y.  
Fell's Lynbrook Nursery, Lynbrook, L. I., N. Y.  
Fish & Co., Chas., Worcester, Mass.  
Frost & Higgins, H. L., Arlington, Mass.  
Garden City Floral Co., Missoula, Mont.  
Goldboro Nursery, Goldboro, N. C.  
Grimley's Evergreen Nursery, St. Charles, Mich.  
Haas, Frederick, Baltimore, Md.  
Highland Nurseries, The, Johnstown, N. Y.  
Hillsdale Landscaping Co., Indianapolis, Ind.  
Hoveman & Sons, John, Rochelle Park, N. J.  
Hoyt's Sons Co., Stephen, New Canaan, Conn.  
Igenfrits' Sons, I. E., Monroe, Mich.  
Ivywild Evergreen Nursery, Colorado Springs, Colo.  
Kansas Evergreen Nurseries, Manhattan, Kans.  
Kenyon's Nursery, Oklahoma City, Okla.  
Lake's Shenandoah Nursery, Shenandoah, Ia.  
Laketon Nurseries, Laketon, Ind.  
Lakewood Nursery, Lakewood, O.  
Lovett's Nursery, Little Silver, N. J.  
Marshall's Nurseries, Arlington, Neb.  
Meadowbrook Nurseries, Englewood, N. J.  
Millane Nurseries, Cromwell, Conn.  
Mount Arbor Nurseries, Shenandoah, Ia.  
Natorp Co., The W. A., Cincinnati, O.  
Neosho Nurseries Co., Neosho, Mo.  
Niemann's Nursery, Cincinnati, O.  
North State Nursery Co., Julian, N. C.  
Ohio State University, Columbus, O.  
Pennsylvania State College, State College, Pa.  
Phelps, Edmund J., Wayzata, Minn.  
Porter-Walton Co., Salt Lake City, Utah  
Roland Park Co., Baltimore, Md.  
Rose Hill Nursery, Minneapolis, Minn.  
Rose Hill Nursery & Florist, Panora, Ia.  
Ruyssens, John C., Louisville, Ky.  
Rockford Nurseries, Rockford, Ill.  
Siebenthaler Co., The, Dayton, O.  
Smith & Sons, Ltd., E. D., Winona, Ont., Canada  
Sneed Nursery Co., Oklahoma City, Okla.  
Sunny Hill Nursery, Granville, Wis.  
Towson Nurseries, Towson, Md.  
Upland Empire Nurseries, The, Boise, Ida.  
Wabash Valley Nurseries, LaFayette, Ind.  
Walman, L. J., Wilmette, Ill.  
Warner's Landscape Service, Towson, Md.  
Westminster Nurseries, Westminster, Md.  
Williams Nurseries, Harvey, Lincoln, Neb.  
Woodmont Nurseries, Woodmont, Conn.

**The Garden Shop, Inc.**  
4819 Mission Road  
Kansas City, Kansas  
*Mfrs. of Automotive Tree Movers.*



9549 are among the best under experiment.

#### Sweet Cherries.

The following sweet cherries were received from the United States Department of Agriculture seven years ago and planted at Raleigh to test for possible use as maraschinos, imported from Italy:

Garibaldi, a vigorous grower, producing large maroon fruit that is mild, sweet, juicy and tender; good-quality cherry.

Bianco Rosata di Pimento, vigorous tree, producing extremely large dark red fruit, that is mild and medium sweet.

Bicentenaria, vigorous grower, producing medium-size maroon fruit, that is mild and sweet.

Inglese Precoce, vigorous grower, producing medium large light red fruit, that is medium acid juicy and tender.

Regina Ortensia, vigorous grower, producing large maroon fruit, that is mild, sweet, juicy and tender; very good.

#### Ornamentals.

Cotoneaster species, No. 64253, is a spreading upright ornamental shrub from Tibet, with arching branches crowded with small leathery shining green oval leaves about one-half inch long. It is semievergreen in eastern North Carolina, and grows four to five feet high with a spread of six to eight feet.

Buxus Harlandii, No. 23012, is a Chinese species that is almost as dwarf as the true dwarf box. It differs from this chiefly in its longer leaves, often one and one-fourth inches long. It tends to form rather broad, flat-topped bushes. It is not hardy above Washington, D. C.

Viburnum dilatatum, No. 43731, is of Japanese origin and is a hardy deciduous shrub, six to ten feet high, with broadly oval, pointed hairy leaves. The pure white flowers are all fertile and are produced in June in hairy 5-rayed cymes three to five inches wide. The fruit is bright red.

Zelkova serrata, No. 82353, a handsome Japanese tree, grows up to ninety feet with a short trunk dividing into many upright spreading branches and forming a broad round-topped head much like an elm.

These plants were secured from the division of plant exploration and introduction, bureau of plant industry, United States Department of Agriculture, Washington, D. C.



## Charlie Chestnut



### A Hurry-up Call from Elmer

There was a awful scraping of tires and screeching of brakes outside the office last Sunday. I run out to see what was broke loose. I seen it was Elmer and I knew I was in for it. Elmer should have been born a old lady as he is the talkingest landscaper that comes to the nursery. In the 20 years I have known Elmer he has had the same felt hat and the same gold teeth well plastered with tobacco juice. He looks like he had been left out in the rain for 5 years and kinda warped a little. His man Jim was with him.

"Whats the idea of the big rush?" I says. "You almost took off a corner of the office."

"Me and Jim had a bet," Elmer says, "Jim bet me I couldnt make it from Lake Park in 35 minutes."

Elmer and Jim argued for a few minutes about the time they made. Elmer said they started at 10 after and Jim said it was 5 after. So there it hung and I dont know who won.

Elmer got out and took a fresh chew of fine cut and stretched his arms and his legs. "These here old Model A sure shake hell out of a person," Elmer says. "Say Charlie, me and Jim is in a hurry, we got two men waiting at a garage in St. Charles, so we got to hurry back," he says.

"Well, me and Jim has got the waterworks job sewed up," Elmer said. "There was a lot of bidding on it. But I cut my figger on the grading and I was low man by \$14.00. Boy! I

seen old Jensen and was he sore. He says, you are crazy on your bid. But I didnt say nothin. I just let him talk. I got a farmer who will come in with a scraper for \$2.50 a day. The rest all figgered \$5.00 a day for moving dirt. Thats where I cut under and got the job."

"You know that old International of mine, Charlie, its about shot anyway so I am going to use it for hauling gravel. Jensen has got a new truck and he dont want to wreck it driving down into that pit. Thats a steep climb Charlie and it takes it out of a truck."

"I wrecked that truck the winter I was hauling coal. I got talked into that when I was pardners in tree moving that winter with Braddock. Two loads is all you can make from the mines in a day and what do you get out of it? I figgered that me and Braddock only made 2 dollars a day and not counting the wear and tear on the truck besides. Braddock was around the other day. He wants me to haul again this winter. Nothin doing I told him. I can do hauling for the W. P. A. and make that good."

"The only time I made anything was the time me and Braddock went to southern Illinois and got a load of peaches. We was gone three days and cleaned up over \$40.00. We slept right in the truck. The last time I went down last summer, there wasnt no crop and we come back empty. I cant kick because I wasnt busy any-



## The Storrs & Harrison Company

"PAINESVILLE NURSERIES"

85 Years in

Painesville, Ohio

MIDWEST HEADQUARTERS

FOR COMPLETE NURSERY SUPPLY

Fruit Trees  
Deciduous Trees  
Evergreen Trees  
Shrubs  
Vines

Small Fruits  
Roses  
Hardy Perennials  
Plants  
Seeds, Bulbs, Tubers

## Flowering Trees

Crabs, Dogwoods, Thorns  
In  
Good Assortment

Write Us

JACKSON & PERKINS COMPANY  
Newark, New York

**TAXUS**  
**AZALEAS**  
**RHODODENDRONS**  
ASK US ABOUT THEM  
**WYMAN'S**  
FRAMINGHAM NURSERIES  
FRAMINGHAM MASSACHUSETTS

## LINING-OUT STOCK

Per 100  
6 to 12 to  
12 ins. 18 ins.  
Forsythia Intermedia, . . . \$3.00 \$3.25  
Fortunei and Viridissima . . . 2.50 3.00  
Salix Babylonica . . . 2.50 3.00  
Spiraea Vanhouttei and  
Reevesiana . . . 2.50 3.00  
Weigela Amabilis, Hendersonii  
and Variegata . . . 2.50 3.00  
Orders filled from freshly dug stock.

**APPALACHIAN NURSERIES**  
Box 255 Waynesboro, Pa.

**PRIVET and BERBERIS**  
Splendid Stock  
Write for Special Quotations  
**LESTER C. LOVETT**  
MILFORD DELAWARE

**PRINCETON NURSERIES**  
of PRINCETON, N. J.  
SUPERIOR  
Hardy Ornamentals

Juliana Barberry, rooted cuttings, \$10.00  
per 100.  
Pfitzer's Juniper and Taxus, rooted cut-  
tings, \$7.00 per 100.  
In paper pots add 3c each.  
Will trade for salable size stock.  
**BARDONA NURSERY**  
Box 24, Bakerstown, Pa.

**ARTHUR DUMMETT**  
Dealer in Nursery Stock  
at Wholesale

61 West Grand St. Mount Vernon, N. Y.

way in tree work, in August you know how it is, and I needed a vacation anyway.

"I got a chance to trade that old truck the other day. If I make out good on that waterworks job, I might let it go. That is if I can get a good trade. I might get a dump body. I do a lot of grading and I could save a lot of shovelling if I had a dump body. But a dump body aint so good for hauling trees, so I aint made up my mind. I might keep the truck and have new rings put in. Or me and Jim might put the rings in if we aint busy all winter with tree work.

"Last winter I had a lot of tree work. School boards is the worst I ever got mixed up with. Never again for me. Especially on contract work. There is always five or six bosses and they have all got different ideas and none of them knows anything about what the job calls for. I made a contract to level up the school yard there in Pelton. I figgered two terraces down to the road level and I worked it out there was enough dirt without doing no hauling. \$180.00 I figgered on that job. Remember that Jim. Jim was right there when the school board members talked it over and told me to go ahead. I got done and sent in my bill for \$180.00 and then they started calling me up. One said how about that fill around that playground stuff? Another was after me to smooth up along the road. Hell no, I says thats a public highway and I aint going to tangle up with the highway.

"That reminds me of the run in I had with the highway department. One of their men lives two doors from me, you know Charlie. Geo. Potts is his name. I think you know him, Charlie, he used to work for me. I know him real well. He worked for me when I first got that International about 6 years ago. That was the fall I put in all them Sycamores in St. Charles.

"Say, Charlie, I was thru St. Charles the other day. You know all them Sycamores has all been cut back and trimmed, and of all the lousy jobs of trimming I ever seen. It looks like Jensens work to me. You know Charlie, Jensen aint got no equipment for tree work. He was down to see me and wanted to borrow one of my big cables the other day. Me and Jensen always talks to each other, but I aint got no use for his work. So I says to him, Oscar, all my cables is in use and I cant leave you have one

## SHRUBS

	Per 10	Per 100
Althaea, assorted colors		
2 to 3 ft.	\$1.50	\$12.00
3 to 4 ft.	2.00	18.00
Barberry Thunbergii		
15 to 18 ins.	1.25	11.00
18 to 24 ins.	1.75	15.00
2 to 3 ft.	2.50	20.00
Bush Honeysuckle		
2 to 3 ft.	1.20	10.00
3 to 4 ft.	1.50	12.50
Crape Myrtle		
2 to 3 ft.	3.50	30.00
3 to 4 ft.	4.50	40.00
Dogwood Red-stem		
2 to 3 ft.	2.00	17.50
3 to 4 ft.	2.00	23.00
Flowering Peach		
3 to 4 ft.	2.50	20.00
4 to 6 ft.	3.50	25.00
Forsythia		
2 to 3 ft.	1.50	12.00
3 to 4 ft.	2.00	16.00
Flowering Quince		
18 to 24 ins.	1.50	12.00
2 to 3 ft.	2.50	20.00
Mock Orange		
2 to 3 ft.	1.50	12.00
3 to 4 ft.	2.00	16.00
Pussy Willow		
2 to 3 ft.	1.50	12.00
3 to 4 ft.	2.50	20.00
Spiraea Vanhouttei		
2 to 3 ft.	1.20	10.00
3 to 4 ft.	1.50	12.00

**WAYNESBORO NURSERIES, INC.**  
Waynesboro, Virginia

## EUROPEAN BEECH

Fagus Sylvatica

Heavy plants, well branched, full bodied and uniform. Excellent for hedges.

	Per 10	Per 100
8 to 10 ft., B&B	\$50.00	\$450.00
10 to 12 ft., B&B	70.00	650.00

## BAY STATE NURSERIES

Incorporated  
North Abington, Mass.

"A friendly, efficient sales service"

**E. D. ROBINSON**  
SALES AGENT  
38 So. Elm St. P. O. Box 285  
WALLINGFORD, CONN.

Representing  
Adams Nursery, Inc.  
Bristol Nurseries, Inc.  
Barnes Brothers Nursery Co., Inc.  
North-Eastern Forestry Co., Inc.  
A. N. Pierson, Inc.

A complete line of well grown, hardy plant material

## BURR'S QUALITY SEEDLINGS

Barberry Thunbergii, Barberry Red Leaf, Iboia Privet, Ampelopsis Velitchii, Dutchman's-pipe.

At Bargain Prices.  
**C. R. BURR & COMPANY, INC.**  
Manchester, Conn.

## SEEDS

Tree and Shrub  
Perennials

**HERBST BROTHERS**

92 Warren St., New York, N. Y.

Please Mention  
**THE AMERICAN NURSEYMAN**  
when writing advertisers

now. Jensen used to work for the telephone company trimming trees and that is all that he knows about tree work. A person dont like to loan tools, especially cables. So I told him nothing doing. In a nice way you know so he wouldnt get sore. I dont like to loan out tools.

"One time I loaned one of my big blocks that I use in tree work. I let Braddock have it and when he brought it back it was all worn out. I found he loaned it to a house mover and it was over two years before I got it back. That was before me and Braddock was pardners in tree work.

"Braddock come to me one time and he says, Elmer, me and you could make out good on tree work if we would go in pardners. I got my belly full of that. No more pardners for me. He got so he wouldnt work only half the time and then I was furnishing all the tools besides. I'd sooner be on my own, whether its tree work or grading. Then you know where you are at.

"Braddock was after me the other day. He wants to put up a vegetable stand in front of my place next summer. He offered me 50-50 on it, but I had my experience with Braddock and I told him nothing doing. If you want to pay me \$2.00 a week why OK, but not no 50-50 and no pardners for me. I dont know whats the matter with Braddock. He is slower than a w.p.a. man. He talks all the time and kills more time than any 6 men you ever seen.

"One time me and Braddock took a contract moving a big Red Oak for a banker in Lake Park. You know Red Oak is mean to handle, Charlie. They aint got any roots hardly and I never guarantee when I see its a Red Oak. Now Elms is different. If its Elms I'd as soon guarantee as not. I never lose a one. Take it last winter when I moved them 21 Elms in Forest Grove for that big beer baron, whats his name, you know the place Charlie, its there on that road past the condense factory. Well, he wanted it guaranteed. So I says it will cost you 25% extra. You know Jim you was standing right there at the time. So after I says about the 25% if I guarantee he says go ahead and make it a guarantee. I never lost a one. That was a good one. I was going to guarantee anyway because I heard Jensen was going to guarantee. You know Charlie how that stuff gets around so I figgered I

would have to guarantee too. So I figgered in the guarantee in the first place and when I added the 25% he never batted a eye. You can do it with Elms, but never on Red Oak.

"One time I had a customer wanted a 8 inch Elm moved. That was before me and Braddock was pardners. Braddock bid and I bid. I knowed Braddock didnt have no tackle or nothin. He was figgering to do it all by hand. You know you cant move a 8 inch by hand Charlie. There aint no man living can do it. Anyway Braddock bid and I bid. Braddock was \$35.00 under me. I says to Braddock, you cant move a 8 inch with the stuff you got, but he was cocky and he says Elmer you aint the only tree mover around here. I didnt say nothing, but I made up my mind I wouldnt give Braddock none of my equipment. He monkeyed around all winter on it. It cost him three times as much as he got for the job and then he barked it so it didnt grow anyway. That was the last big job Braddock got until he come with me that winter. I says to Braddock, what did I tell you, but he was a little sore about it.

"Now Braddock is figgering on buying a filling station. But he wont never make that go. He has got his eye on one about a mile from my place. I told him that station aint sold a gallon a day and it aint no wonder you can buy it cheap. But you cant tell Braddock nothing. He is as liable to buy it as not and then he will be around begging me for a job in the spring.

"Braddock is awful good on cavities. I remember one time—"

Just then Elmer took time out to spit so I got a word in. "Well Elmer I says is there anything you was looking for?"

"I don't suppose you got a 8 foot hemlock have you?" Elmer says.

"The biggest we got is only 3 feet," I says.

"That aint half big enough," says Elmer, "maybe I can switch him over to a Austrian Pine. I know where I can pick one up from a farmer. Its growing by the hen house and his wife dont want it and she told me I could have it for 25c."

"Well, come on Jim," Elmer says, "we got to get going, we got 2 men waiting."

He swung the old coupe around and was off in a cloud of dust.

#### WESTERN TREE MEETING.

The sixth annual Western Shade Tree Conference was held at Oakland, Cal., April 26 to 29. California speakers on appropriate subjects appeared on the program. The conclusion was an annual banquet, with John McLaren and Julius Girod as guests.

RALPH B. MEANEY, former chief nursery inspector of Pennsylvania, is now representing the Davey Tree Expert Co., at Portland, Me. Mr. Meaney's successor as chief nursery inspector has not yet been appointed.

### FINEST LANDSCAPE STOCK

Ready for this spring's planting, covering all of the best shrubs and plants for the south. Also a half million of lining-out CAMELLIAS, AZALEAS and GENERAL NURSERY STOCK now ready.

*Write for Price List*

**E. A. MEILHENNY**

*Specialist in CAMELLIAS, AZALEAS, IRIS and HEMEROCALLIS  
AVERY ISLAND, LA.*

### HIGH-QUALITY NURSERY STOCK

We are still offering a good assortment of all kinds of nursery stock.

*Write for Bulletin No. 3 showing grade counts.*

**LAKE'S SHENANDOAH NURSERIES**

SHENANDOAH, IOWA



## TAXUS

### Cuspidata Capitata

1½ to 10 feet.

Best available.

Carloads or truckloads only.

### VISSER'S NURSERIES

Springfield Gardens, L. I., N. Y.

### WHOLESALE TRADE LIST JUST ISSUED

Lower prices on Evergreens, Deciduous Trees, Shrubbery, Berry Plants, Barberry Thunbergii, green and red; Evergreen Barberry, Glossy Privet, California Privet, Lining-out Stock, 2-yr. Budded Apple Trees, Peach Trees in quantity—Hale Haven, South Haven, Elberta, etc.

It would be to your interest to have our new trade list which will be mailed on request. For large quantities mail us list for Special Letter Prices.

**The Westminster Nurseries**  
WESTMINSTER, MARYLAND

### LINING-OUT STOCK

Complete list of deciduous lining-out stock this year.

Place your order now for Spring shipment, and avoid disappointment when wanted.

**THOMAS B. MEEHAN CO.**  
Dresher, Pa.

### BOBBINK & ATKINS

Nurserymen since 1898  
Rutherford, New Jersey

Send for a copy of our  
1939 Wholesale  
Catalogue.

Use printed stationery, please.

### Koster Company, Inc.

HOLLIES FOR IMMEDIATE LINING OUT.  
Bella, Conners, Cronata and Glabra  
4 to 6 ins., 2-yr. tpl. .... \$ 80.00 per 1000  
6 to 9 ins., 2-yr. tpl. .... 150.00 per 1000  
Our kind of stock will pay big dividends!

BRIDGETON, N. J. Write for catalogue

### WHOLESALE GROWERS

Specialising in  
EVERGREEN SEEDLINGS  
TRANSPLANTS AND APPLE TREES  
Write for price list.  
Send us your trade list.  
**MATHEWS EGGERT NURSERY**  
North Muskegon, Mich.

### CORLISS OPENS BRANCH.

A nursery was opened April 19 at Ipswich, Mass., by Corliss Bros., Inc., as a branch of the main nurseries and greenhouses at Gloucester. It features a full line of shrubs, evergreens, shade trees, roses and supplies.

A feature of this new 50-acre nursery is the modern office building, 45x100 feet, which houses office, salesroom, storage rooms, garage and a packing room.

The grounds around the office, when completed, will contain perennial gardens, show plantings of flowering shrubs, evergreens, deciduous trees and a naturalistic pond surrounded by rhododendrons and azaleas.

The opening of this new nursery was announced by a full-page advertisement in the Gloucester Daily Times inviting the public to visit the new nursery.

### ILLINOIS HEARING.

For the protection of white pine growing in state forests and parks, as well as other plantings, the director of the Illinois department of agriculture has been urged to promulgate a quarantine in controlled areas to be established about plantings for the prevention of the white-pine blister rust, chiefly in the northern tier of counties in the state. Control areas would consist of 1500-foot zones in the case of all cultivated and native ribes (currant and gooseberry) and a 1-mile zone in the case of Ribes nigrum (European black currant) about any considerable planting of white pine. A hearing with regard to the establishment of such a quarantine has been set for 10 a. m. May 15, at the office of the state nursery inspector, Glen Ellyn State Bank building, Glen Ellyn, Ill.

### PEONY SOCIETY SHOW.

The annual meeting and exhibition of the American Peony Society, in co-operation with the Massachusetts Horticultural Society, will be held June 22 and 23, at Horticultural hall, Boston, Mass. Complete information as to schedule for all classes of flowers may be obtained from A. H. Nehrling, exhibition manager, 200 Massachusetts avenue, Boston.

THE Welch Nursery Co., Houston, Tex., has been incorporated by R. O. Blackwell, Jr., C. F. Herring and Edward Clark.

## TAXUS

*Taxus cuspidata*, spreading, propagated from cuttings of the improved dark green strain.

Ea. per Ea. per  
100 1000

18 to 24 ins. light		
XXX B&B	\$1.25	\$1.15
18 to 24 ins. heavy		
XXX B&B	1.50	1.35
2 to 2½ ft. XXX B&B	2.00	1.85

We also have large Taxus, including trimmed specimens up to 4 and 5 ft. high.

Taxus headquarters — over 100,000 plants.

**THE W. A. NATORP CO.**  
Cincinnati, Ohio

### EVERGREENS



The largest stock of up-right and spreading Taxus, Junipers, Spruces, Retinopora, Arbor-vitae and Broad-leaved Evergreens to select from in the state. There is an evergreen for every purpose.

As well as the best grown deciduous and flowering trees, shrubs and roses. Write for our spring 1939 wholesale trade list.

**THE KALLAY BROTHERS CO.**  
Painesville, Ohio

### EVERGREENS

Per 100  
Chinese Juniper, 18 to 24 ins., xxx. \$35.00  
Pyramidal Arbor-vitae,  
18 to 24 ins., xxx ..... 35.00  
American Arbor-vitae,  
10 to 12 ins., xxx ..... 10.00  
Fitzner's Juniper, 10 to 12 ins., xxx 30.00  
Fitzner's Juniper, 12 to 18 ins., xxx 50.00  
Roots puddled. All stock dug fresh on receipt of order.

### RIVERSIDE NURSERIES

Box 113  
Thiensville, Wis.

### HERBS

Pot-grown plants: over a hundred varieties. Dried Herbs for Flavoring and Fragrance. Other plants of unusual character and with the charm of old-time gardens. New Catalogue sent on receipt of 10 cents.  
**WEATHERED OAK HERB FARM, INC.**  
Bradley Hills, Bethesda, Maryland

### QUALITY PERENNIAL PLANTS

Specialties  
Gypsophila Bristol Fairy and Dicentra Spectabilis.

Let us quote on your perennial needs.

**PERENNIAL NURSERIES** Painesville, O.  
Alva H. Smith R.F.D. 2

### COLLECTED NORTHERN EVERGREENS

Hardy, well rooted  
Abies Balsamea, Thuja Occidentalis, Tsuga Canadensis.  
Per 1000 Per 1000  
3 to 6 ins. .... \$3.00 9 to 12 ins. .... \$12.00  
6 to 9 ins. .... 9.00 12 to 18 ins. .... 20.00  
Juniperus Virginiana, 4 to 8 ins., \$12.00 per 1000.  
Puddled and carefully packed. Cash with order.  
Write for other lists.  
**WILLIAM C. HORSFORD** Charlotte, Vt.

# New Books and Bulletins

## THE WORLD OF PLANT LIFE.

Planned and written with the specific purpose of making the layman familiar with some of the interesting plants, both native and introduced, which are found in the United States, "The World of Plant Life," by Clarence J. Hylander, comprehensively covers the subject in nearly 750 pages, 7 1/2 x 9 1/2 inches of moderate-size type, profusely illustrated with explanatory sketches and full-page pictures of plants. Published by the Macmillan Co., at \$7.50, it is especially valuable for the person who wishes closer acquaintance with the various branches of plant life by an easier route than a course in botany.

Mr. Hylander has written previous books in the popularization of scientific subjects, but in this one he is most thoroughly at home, since he is assistant professor of botany at Colgate University. Moreover, he is fond of the outdoors and in traveling twice from Maine to California by car and trailer he familiarized himself at first hand with the wide range of plants that grow in the various sections of this country.

However, the book is not merely a travelogue nor one of the pseudo-scientific volumes too frequently put together for popular consumption. In its presentation and in its detailed exposition the book is thoroughly scientific, so that the reader, should he master the book, will have familiarity with botanical terms and an understanding of the plant world in both a broad and a detailed sense.

In the introduction he explains the division of the approximately 250,000 different kinds of plants into phyla, families, genera, species and varieties. The lower forms of plant life that make up eight out of the ten phyla are briefly reviewed in the first 100 pages. The fern plants, or pteridophyta, occupy a chapter of seventy-two pages. The remaining 464 pages of text are devoted to the seed plants, or spermatophyta, the highest group of plants, which includes, of course, those with which commercial growers are most familiar. The families are taken up one by one, in chapters of a dozen or so pages each. As this portion of the book is most thoroughly illustrated, with many pictures taken by the author in his travels, it is ap-

parent that these chapters explain the grouping of the plants involved, rather than individual descriptions.

An appendix of forty-eight pages includes a check list of species. Another of eight pages contains a reference reading list, so that persons interested in any particular chapter may find material for further study. An index of thirty pages makes easy of access the great amount of material included in this interesting and useful volume.

## GARDEN PLANNING.

Never has a spring brought so many garden books from the publishers, as readers may have commented as they have noticed this department in issue after issue. So, to undertake another garden book the author must be urged by a compelling motive, as H. Stuart Ortloff and Henry B. Raymore state in their preface to "Garden Planning and Building," another volume in the Whittlesey House garden series, edited by F. F. Rockwell. The authors have justified their assertion, because the book meets a need that landscape architects and nurserymen have long noted.

The volume is directed to help those persons who desire carefully planned grounds about their homes, but do not know how to achieve that end. It is obviously not a manual of construction nor a planting guide. Called by its authors a "necessarily somewhat superficial treatise," it sets forth the problems which the landscape architect meets in designing home grounds and indicates the methods whereby the desired objects are gained. The man who is ambitious enough to do his own designing will get some able counsel. The man who engages a nurseryman or landscape architect will have a bet-

ter appreciation of the value received through their services.

The book begins with the selection of a site for a home, locating the house and establishing a landscape plan. The steps of grading and lawn making, planning drives and walks, designing the flower garden, providing walls and fences, locating garden houses and other structures, designing water features and wild gardens, lighting the garden and maintaining the soil are covered in successive chapters. The final chapter discusses the landscape architect and his client in their various relations.

As practicing landscape architects, the authors have information to give, and they have set it forth well. Their success as authors of previous garden books commends them. The book is well illustrated, particularly with sketches that reinforce the statements of the text. Bound in a gray cloth cover, the book is published by the McGraw-Hill Book Co., at \$3.

## BULLETINS RECEIVED.

"The European Red Mite and Its Control," by Philip Garman and J. F. Townsend, bulletin 418 of the Connecticut experiment station, New Haven, issued November, 1938, is a general discussion of the insect and its control. Subjects discussed include life history and habits, nature of injury, nature of dispersal, outbreaks, conditions affecting development, and use of sprays. Of particular interest is the discussion of experiments and the results obtained with dormant and summer sprays. The effect of sprays on the natural enemies of the red mite is told. In making suggestions to grow-

## The PAUL OFFENBERG NURSERY Company

1988 East Livingston Avenue  
COLUMBUS, OHIO

Lowest Prices Highest Quality

## EVERGREENS

for Lining out

Grafted plants

50,000 out 2 1/2-in. pots

Grafted plants, 1-yr. field

Grafted plants, 2-yr. field

Cuttings, rooted, out of the bench

Cuttings, Bare roots, 1-yr. field

Cuttings, Bare roots, 2-yr. field

Ask for Special list

## NORTHERN-GROWN Nursery Stock

We still have a COMPLETE LINE of FOREST Trees, FRUIT Trees, SHRUBS, FLOWERS, and ROSES. . . . WRITE for PRICES or SEE page 22 American Nurseryman for APRIL 15.

ALL STOCK kept dormant in Modern Cold Storage Plant.

THE HOUSE OF GURNEY, Inc.  
Yankton, South Dakota

## PLANT LINERS NOW

- Baby Phlox Liners—35 choice true-to-name varieties.
- Evergreen Seedlings
- Potted Pfitzers

Write for special quantity quotations. We can save you money.

**SHERMAN NURSERY CO.**  
Charles City, Iowa

## PIONEERING THE NEW BUDDLEIAS

2 1/2-inch pots	10	100	1000
Charming, new true pink.....	18c	15c	12c
Concord, dark red.....	60c	50c	40c
Dubonnet, red.....	60c	50c	40c
Eleanor, Eleanor blue.....	60c	50c	40c

The first offering of this complete list of all new Buddleias. Customer demand means profits from plants or cut flowers. Be the first in your locality to handle these entirely new sorts. Plant early for maximum results. Will bloom till first heavy frosts. Color plates furnished.

**PLANT BUYER'S SERVICE**  
Ralph R. Coe  
Box 253 Painesville, Ohio

## EVERGREENS

Complete assortment of the best varieties of Evergreens.

Send for our wholesale nursery price list

**HOLTON & HUNKEL CO.**  
P. O. Box 1747 Milwaukee, Wis.  
Nursery at Brown Deer, Wis.

## LINING-OUT STOCK

	Per 100
Flowering Crabs, fine bench grafts.....	\$5.00
Beshita's, double pink, fragrant	
Eleyl, semi-double deep rose	
Niedzwetzkyana, large red	
French Lilacs, fine bench grafts.....	5.00
Charles X	
Marie Legraye	
Barberry, green Jap., 2-yr., 9 to 12 ins.....	1.35
White-flowering Dogwood, 15 to 24 ins., fine stock	3.00
Barberry, Red-leaved, 6 to 9 ins., fine stock	3.50
American Snowball, 12 to 18 ins.....	4.50
Japanese Snowball, 12 to 18 ins.....	4.50
Highbush Cranberry, 12 to 18 ins.....	4.50
Forsythia spectabilis, 9 to 12 ins.....	2.75
Dutchman's-Pipe, very fine seedlings.....	2.00

Also a nice lot of landscape material in Flowering Crabs, French Lilacs and other fine shrubs and trees.

**THE HARMON NURSERY, Prospect, Ohio**

## LINING-OUT STOCK

50,000 grafted evergreens from pots, potted shrubs and evergreens. Dormant stock of vines, trees and shrubs for planting out. See list or let us quote you on your wants.

**HILL TOP NURSERIES**  
Cassstown, Ohio

## JUNIPERUS PFITZERIANA

Strong rooted tip cuttings.  
\$3.50 per 100, \$30.00 per 1000

**J. B. BEALLE**  
Greenwood, Miss.

ers the authors recommend the examination of trees carefully when pruning during the winter. If no red mite or aphid eggs are found the spraying with dormant sprays may be omitted.

Methods of controlling the rosy apple aphid are told in bulletin 126, "Control of the Rosy Apple Aphid in Connecticut Apple Orchards," by Philip Garman, issued by the Connecticut experiment station, New Haven, December, 1938. Also discussed are the life history of the insect, damage, natural enemies and the prediction of outbreaks.

The recent report of the Florida agricultural experiment station, Gainesville, contains a résumé of work completed and in progress during the fiscal year ending June 30, 1938. Of interest to nurserymen are the experiments being conducted on the effect of methyl bromide on nursery stock when used as a fumigant and the investigations on the value of root-growth substances.

"The History of the Use of Derris as an Insecticide," by R. C. Roark, of the United States Department of Agriculture, is the second bulletin in this series and covers a period from 1919 to 1928. The bulletin traces the use of derris as an insecticide through this period and presents a table of insects against which derris has been tested.

"Eighteen Varieties of Edible Soybeans," bulletin 453 of the Illinois experiment station, by J. W. Lloyd and W. L. Burlison, tells of the characteristics, market qualities and method of culture of eighteen varieties of soybeans. Directions for harvesting, curing and threshing are given.

"Directions for Spraying Fruits in Illinois," circular 492 of the Illinois experiment station, Urbana, tells of the insects and diseases attacking fruit in Illinois, methods of control, how to reduce spray injury, spray schedules, preparing and mixing spray materials, commercial preparations and the amount of spray residue allowable on fruit. Of particular interest is the section on the preparing and mixing of spray materials and the table of apple varietal resistance and susceptibility to scab, blotch, bitter rot and San Jose scale.

**HULL'S NURSERY**, 219 Avenue E, Fort Madison, Ia., has discontinued business.

## Surplus Evergreens

### Black Hills Spruce

	Per 10	Per 100
	Each	Each
2 to 3 ft., xxx, B&B.....	\$1.15	\$1.00
3 to 4 ft., xxx, B&B.....	1.40	1.25
4 to 5 ft., xxx, B&B.....	1.65	1.50

### Colorado Blue Spruce

2 to 3 ft., xxx, B&B.....	1.65	1.50
3 to 4 ft., xxx, B&B.....	2.15	2.00
4 to 5 ft., xxx, B&B.....	2.65	2.50

### Colorado Green Spruce

2 to 3 ft., xxx, B&B.....	1.15	.90
3 to 4 ft., xxx, B&B.....	1.40	1.25
4 to 5 ft., xxx, B&B.....	1.65	1.50

### Pyramidal Arbor-vitae

2 to 3 ft., xxx, B&B.....	1.00	.90
3 to 4 ft., xxx, B&B.....	1.25	1.00
4 to 5 ft., xxx, B&B.....	1.50	1.35

### Japonica Juniper

15 to 24 ins., xxx, B&B.....	1.00	.90
------------------------------	------	-----

### Pfitzer's Juniper

15 to 18 ins., xxx, B&B.....	1.00	.90
------------------------------	------	-----

### Andorra Juniper

15 to 18 ins., xxx, B&B.....	.90	.75
------------------------------	-----	-----

Visit our nurseries and make your own selections. Write for our complete lists.

**RIVERSIDE NURSERIES, INC.**

Box 113 Thiensville, Wis.

## Surplus Evergreens

	10	100
	Each	Each
200 Black Hills Spruce	\$1.25	\$1.00
2 1/2 to 3 ft., xxx, B&B.....		
500 Engelmann Spruce		
(bluish tint)		
2 to 2 1/2 ft., xxx, B&B.....	1.50	1.25
20,000 Juniperus Virginiana		
Seedlings (Northern Wis. Type)		
4 to 6 ins., \$25.00 per 1000.		

**UECKE EVERGREEN NURSERY**  
NEW LONDON, WIS.

## HILL'S EVERGREENS

Complete assortment of lining-out sizes. Also larger grades for landscaping. Send for our wholesale catalogue.

**D. HILL NURSERY CO.**  
EVERGREEN SPECIALISTS  
Largest Growers in America  
Box 402 DUNDEE, ILLINOIS

## EVERGREENS

Lining-out and Specimens  
Fruits and Shrubs

Write for price list

**J. V. BAILEY NURSERIES**  
Daytons Bluff Sta. St. Paul, Minn.

## BOLLEANA POPLARS

Choice, well branched, straight stems, with good root system.

6 to 8 ft.....	35c	1 1/4 to 1 1/2 in..	75c
8 to 10 ft.....	60c	1 1/2 to 2 in..	\$1.00

**ESCHRICH'S NURSERY**  
Sta. F, Route 9, Milwaukee, Wis.



## EVERGREENS

For Seventy-five Years  
Growers of Quality Evergreens  
Lining-out Stock a Specialty  
Write for Trade List

**EVERGREEN NURSERY CO.**  
Established 1864 : STURGEON BAY, WIS.



## Insect Control

### GRASSHOPPER BAIT.

One of the most effective and cheapest grasshopper baits is that made of mill-run bran, sawdust, sodium arsenite solution and water mixed according to the following formula: One hundred pounds of mill-run bran, sawdust equal in bulk to 300 pounds of bran, two gallons of sodium arsenite solution (4-pound material) and ten to thirty-six gallons of water.

The mill-run bran is the bran flakes such as standard and flour middlings and low-grade flour. Any kind of sawdust may be used with the exception of fresh sawdust from green conifers. All sawdust should be screened to remove any chips or splinters, as they may damage the spreader.

The sodium arsenite solution used as a poison is known as 4-pound material and contains four pounds of arsenic trioxide per gallon.

The bait may be mixed in three ways: Wet mix, which contains all the water and other ingredients needed, should be spread within twenty-four to forty-eight hours after preparation, and is particularly adaptable for use in heavily infested areas during the peak of the baiting season. Semidry mix, containing everything but only about one-fourth of the required water, is more adaptable to storing, but it must be mixed with the rest of the water before spreading. Dry bait, which is sometimes mixed by mills or commercial concerns, contains all the necessary ingredients with the exception of the water, which must be added before use.

After the ingredients have been measured, the sawdust should be spread four to six inches deep on a concrete floor or other tight surface, and the mill-run bran then poured over the top and thoroughly mixed with a scoop shovel. The sodium arsenite is mixed with two to three times its volume of water in order that it may be thoroughly spread over the mixture of sawdust and bran, insuring every flake's coming in contact with the poison. The poison solution should be put in a sprinkling can and the bran sprinkled with about one-third of the contents and mixed thoroughly. This process is repeated until the entire poison solution has been added. The bait should be mixed so as to contain no lumps when the mixing process is finished.

One hundred pounds of the wet bait

is sufficient to treat five acres of land. The amount needed for ditches and fence rows may be determined by multiplying the number of miles of fence row or ditch by forty, and the result is the number of pounds necessary. The number of applications necessary, of course, depends upon the severity of the infestation.

The bait should be broadcast on a warm, still and sunny morning, just before or soon after the temperature reaches 65 degrees, which is usually between 6 and 9 a. m., as this is the active feeding time of the hoppers.

Bait may be spread either by hand broadcast, with a seeder, or some mechanical spreaders as developed by various colleges.

Unused bait may be stored for future use, but it is best if the bait is fairly dry before storing, as this will prevent lump formation and heating.

### CHINCH BUG.

Chinch bugs usually are most injurious to lawns after an exceptionally mild winter and will operate to a high degree if the summer is hot and humid. Because of the preference of the chinch bug for warm temperatures and sunshine, it will seldom attack small, shaded lawns, but prefers the larger lawns that have an abundance of sunshine during most of the day. It attacks less frequently lawns of Kentucky bluegrass, but they are not absolutely immune from its ravages.

The first indication of the attack of the chinch bug is noted when

small patches of grass in the lawn die out, first turning from green to a sickly yellow. This injury is caused by many young and adult bugs gathering at the base of the grass plant and sucking the juices from the blades. After the bugs have killed one plant they will move in a group to the next plant, and so progress until they have killed a large area of lawn.

Satisfactory controls for the chinch bug are being developed. Insecticides can be used to good advantage. The most readily obtainable spray is the common laundry soap of the household applied at the rate of one pound of soap to five gallons of water. A tobacco solution containing forty per cent nicotine used at the rate of one part to 800 parts of water, one pound of soap being added for every twenty-five gallons of the mixture, may be applied with benefit. These solutions must be applied immediately upon discovery of the injury, and if the grass has already turned yellow there is no advantage in applying the mixture to the dead area, but it should be applied to the green grass immediately surrounding the dry part, as the insects have already moved to a new location. This new area of activity is usually a strip three

### CARLOAD LOTS

ELM, American, Moline and Vase, up to 4 ins. All transplants.

MAPLE, Norway, up to 3½ ins. Transplants, extra select, spaced 7x7 ft.

POPLAR, Lombardy, up to 2 ins.

WILLOWS, Thurlow, up to 3 ins.

BARBERRY, Thunbergii, up to 2 to 3 ft.

SPIRÆA, Vanhouttei, up to 5 to 6 ft.

APPLE, 2-year.

CHERRY, 1-year.

PEACH.

All of above items can be supplied in carload lots.

Send for list on many other items.

**C. M. HOBBS & SONS, INC.**  
Bridgeport, Indiana

Largest Nursery in Indiana. Est. 1875.

### FRENCH LILACS

(All Own Root Stock)

Nurserymen and Landscape Men looking for good French Lilacs in varieties not always found in the regular lists and also wishing larger sizes than those generally carried should send for our wholesale list covering

**45 Varieties**

**BRAND PEONY FARMS**

Faribault, Minn.

### STRAWBERRY PLANTS

Dunlap, \$2.00 per 1000

Gem Everbearing, \$3.00 per 1000

**PIRTLE BROS. NURSERY**  
Bloomfield, Ia.

We specialize in  
**APPLE AND PEACH TREES**  
Strawberry, Asparagus, Raspberry and  
Blackberry plants.  
Grapevines, 1 and 2-year.

OUR MANY YEARS' PRODUCTION  
EXPERIENCE COMBINED WITH OUR  
FAVORABLE LOCATION ENABLES  
US TO OFFER STOCK THAT MUST  
PLEASE AT PRICES YOU WILL AP-  
PRECIATE.

Submit your definite list for quota-  
tions.

**BOUNTIFUL RIDGE NURSERIES**  
Princess Anne, Md.

## STRAWBERRY PLANTS

Michigan-grown Hardy Plants

	Per 1000
500,000 Premier	\$3.00
200,000 Dorsett	2.50
50,000 Fairfax	3.00
100,000 Catskill	3.00
50,000 Blakemore	2.50
500,000 Dunlap	2.00
25,000 Aroma	3.00
50,000 Gem, Everbearing	4.00
50,000 Mastodon, Everbearing	0.00

	Per 100
5,000 U.S.D.A. All-Green Blakemore	1.00
350 at 1000 rate. Add 25 per cent for 100.	

**KRIEGER'S WHOLESALE NURSERY**  
Bridgman, Michigan

## SMALL FRUIT PLANTS

Evergreens — Shrubs  
Lining-out Stock  
Send for Complete Trade List  
**SCARFF'S NURSERIES**  
New Carlisle, O.

## Taylor Red Raspberry Plants

20,000 state inspected, large, fine rooted.  
Original stock from Geneva experiment  
station.

No. 1, 3/16 to 1/2 in., \$15.00 per 1000.

**FRED HAZELTON, Le Roy, New York**

## Wholesale Growers of

Grapevines, Currants, Gooseberries,  
Blackberries and Raspberries

Let us quote on your requirements

**FOSTER NURSERY COMPANY, INC.**  
69 Orchard St. Fredonia, N. Y.

## CHIEF RASPBERRIES RED LAKE CURRANT

Hardy Fruit Tree Seedlings  
Americana Plum Manchurian Crab  
**ANDREWS NURSERY CO.** Fairbault Minn.

GRAPEVINES,  
PEACH and SHADE TREES,  
BLACKBERRIES,  
SHRUBS, VINES.

**WILLOWBEND NURSERY**  
PERRY, OHIO

## PEACH PITS

Our Pits Compare Favorably  
With the Best

**HOGANSVILLE NURSERIES**  
HOGANSVILLE, GEORGIA

or four feet wide around the edge of the killed patch. These insecticides can be applied with any garden-type sprayer, or with an ordinary sprinkling can, so as thoroughly to saturate the infested area. After the first application it is well to make another one a week to ten days later to kill any nymphs that may have hatched from the eggs present in the lawn, as these solutions will not kill eggs.

Many dusting powders can also be used with good effect. Finely ground tobacco dust with a nicotine content of about one per cent applied at the rate of twenty-five pounds to 1,000 square feet of lawn will give good results. It is best to use this dust mixed with a fertilizer or lime distributor. After application the lawn should be raked over with the back of a rake so as to work the dust down into the crowns of the plants and bring it into contact with the bugs.

Rotenone dust, applied at the rate of twenty-five pounds to 1,000 square feet of lawn, also gives good results, but it is more expensive than the other mentioned controls.

A pyrethrum soap spray and calcium cyanide dust are also somewhat effective in killing this pest.

The best time for application of these insecticides is in June for the adults of the first brood and in July for adults of the second brood.

## TENT CATERPILLAR.

The Pennsylvania department of agriculture has suggested a spring campaign for the control of tent caterpillars in apple trees in that state. These caterpillars, which can be recognized by the felted tents they construct in crotches of trees, are usually active for a period of three to four years. They are then relatively inactive for a number of years. These pests become so numerous at times that an entire orchard may be completely defoliated.

The eggs, which are deposited in June, hatch in the spring at about the time the first buds open. They are usually found in masses of about 300 to 400 eggs, completely encircling the smaller limbs.

The larvæ, after hatching from the egg mass, remain in groups and construct the silken nests seen in the crotches of infested trees. As the

## VERHALEN DORMANT ROSES

READY FOR YOU.

F.o.b. our newly built, electrically controlled nursery storage at Edwardsville, Illinois, near St. Louis, Mo. Overnight fast freight service to most central cities.

No. 1, 1 1/2; No. 1 1/2, 100; No. 2, 7c.

Multiples of 10, please.

Packing extra at cost.

Betty Uprichard, two-tone pink.  
Condesa de Sagato, flame.  
Dainty Bess, single pink.  
Edith Nellie Perkins, Sweet Pea pink.  
E. G. Hill, red.  
Etoile de Hollande, red.  
F. J. Ludding, red.  
Federico Casas, copper-pink.  
Golden Pernet, yellow.  
Lady Hillingdon, yellow.  
Luxembourg, yellowish.  
Margaret McGredy, flame.  
McGredy's Scarlet, red.  
Mrs. Chas. Bell, flesh Radiance.  
Mrs. Lovell Swisher, pink.  
Mrs. Pierre S. du Font, yellow.  
Mrs. Herbert Stevens, white.  
Radiance, pink.  
President Hoover, orange and pink.  
Sour Therese, yellow.  
Willowmere, pink.

Frau Karl Druschki, white.  
General Jacqueminot, pink.  
Henry Nevard, everblooming red.  
Ulrich Brunner, red.  
Golden Moss, buff-yellow.

## HYBRID RUGOSAS.

Belle Poltevine, pink.  
Hansa, red.  
F. J. Grootendorst, red.  
Pink Grootendorst, pink.  
Rugosa Alba, single white.  
Sarah Van Fleet, pink.  
Sir Thomas Lipton, white.

## CLIMBERS.

American Pillar, single dark pink.  
Cl. Gruss an Teplitz, red.  
Excelsa, red Dorothy Perkins.  
Glenn Dale, yellow.  
La Reve, yellow.

PATENTED ROSES	WHOLE- SALE	RETAIL SELLING
Dream Parade, 1 to 20 over 20 each doz.		
pastel	\$0.50	\$0.40 \$1.00 \$10.00
Feu Pernet		
Ducher, yellow	.60	.50 1.00 10.00
Gloriana, yellow	.50	.40 1.00 10.00
Louis Brinas, flame	.60	.50 1.00 10.00
Mme. Cochet-Cochet, copper-pink	.60	.50 1.00 10.00
Nellie E. Hillock, deep pink	.50	.40 1.00 10.00
Sterling, dark pink brilliant	.65	.50 1.25 12.50
Texas Centennial, red Hoover	.35	.30 .60 6.00

## AMOUR RIVER PRIVET.

	100	1000	10,000
Liners	\$1.00	\$8.00	\$75.00
12 to 18 ins., 3 br. up.	1.50	12.00	100.00
18 to 24 ins., 3 br. up.	2.00	17.00	150.00
2 to 3 ft., 3 br. up.	2.50	22.50	200.00

Phone: Marshall, Texas 29F2.

Telegrams: Western Union.

Address orders to Scottsville, Texas.

Ask for quantity prices.

**VERHALEN NURSERY CO.**  
Scottsville, Tex.

## BOOKS

reviewed in this issue  
and any others on  
horticultural subjects  
are obtainable through

**THE AMERICAN NURSERYMAN**  
508 S. Dearborn St., Chicago, Ill.

Ask for circular of horticultural books.

larvæ grow the tents increase in size. The early morning and evening are their favorite feeding times, and the larvæ prefer wild cherry, apple or plum leaves as food. During the warmer parts of the day and during storms the larvæ remain in the tents, coming out in the early morning and evening to feed. When full grown the larvæ measure about two inches long, and they leave the trees before pupating, usually choosing some sheltered place to spend the inactive stage. The cocoons are oval in shape and of a yellow color. The moths emerge from the cocoons about the second or third week in June when they deposit their eggs, which are not hatched until the following spring.

Fortunately, the tent caterpillar has a number of natural enemies which hold it in check. However, the reduction of the caterpillar reduces the natural enemies which depend upon the pests for existence. This accounts for the 3-year to 4-year cycle of the pest.

In orchards where apple trees are well sprayed with arsenate of lead for codling moth, the tent caterpillar is rarely troublesome. Where such a spray program is not carried out, a careful watch should be kept for the egg masses, which should be removed and burned. The tents are easily destroyed by removing by hand. If the removal of nests is done during cool, damp days it will also destroy the caterpillar, as it usually remains in the tent during these days. The wild cherry, which is a favorite food plant, when growing as a weed near an orchard should be cut down to help control infestations.

An arsenate of lead spray, using one-half pound to fifty gallons of water, applied as the tents are noticed is effective. A dust of fifteen pounds of arsenate of lead and eighty-five pounds of hydrated lime may also be used.

A LINE of nursery stock has been added by the Monterey Greenhouse, Triumph, Minn. Claude Smock will be in charge of the new venture.

#### FRUIT MARKET AGREEMENT.

Tentative approval of a marketing agreement for fresh Bartlett pears, plums and Elberta peaches grown in California was announced last month by the division of marketing and marketing agreements of the United States Department of Agriculture.

The agreement is being submitted to handlers of these fruits for their signatures. Growers are to vote soon in a referendum. Action must be favored by two-thirds of the growers of each fruit, by number or by volume, who vote in the referendum. In addition, the agreement must be signed by handlers of at least fifty per cent of the volume of each kind of fruit under the program.

The program is similar to a plan which was in effect for such California deciduous fruits in 1936 and 1937.

Major provisions proposed include (1) the establishment of a control committee of twenty-five members to administer the program, (2) the establishment of separate commodity committees of growers to administer shipping regulation provisions concerning each fruit, (3) the limitation of shipment of any grade or size of fruit, (4) authority for requiring inspection of all shipments of fruit during periods when shipping regulations are in effect, (5) regulation of daily shipments by means of allotments to shippers at shipping points and by limitation of shipments from railroads and cold-storage assembly points, (6) the establishment of a clearing house of marketing information concerning these fruits, (7) authority for regulation of unfair trade practices in the packing of Elberta peaches and (8) means for financing administration of the program.

#### PAUL HOWARD'S TO CLOSE.

Announcement has been made by Paul J. Howard's Horticultural Establishment of the closing of Flowerland, the firm's quarters at 250 South La Brea, Los Angeles, Cal. The complete stock of the establishment, including seeds, bulbs, trees, shrubs, tools and other gardening accessories, is now being offered at reduced prices in a sale that started April 17. Any further activities in the field of horticultural endeavor will be announced at a later date, the closing announcement states.

#### PASADENA SPRING SHOW.

New records in attendance and interest were set at the annual Pasadena spring flower show, held at Pasadena, Cal., last month. The event, which was held in the Fannie F. Morrison Horticultural Center, was characterized by the prominent part played by nurserymen in exhibits and the furnishing of materials.

Commercial exhibits were first seen upon entering the show. Mordigan's Evergreen Nurseries, San Fernando, had an exhibit of rustic character, in which gnarled eucalyptus logs were used as a border and to form a wandering outline of rustic paths. Varied evergreens were banked in the background, and massed plantings included magnolias, jasmines, begonias and callas, with primulas as a border.

Joseph Copps, Jr., landscape artist, had a delightfully developed brook, with natural sloping sides planted in woody grass and miniature daisies and primulas. A few ferns, trees in partial leaf and a few rocks completed the small but attractive setting.

Armstrong Nurseries, Ontario, had

# TIE

cut flowers—rosebushes—shrubs—perennials—  
for store and individual trade or retail mail  
orders—small fruits—counted seedlings—young  
plants—and so forth.

**EASIER — NEATER — TEN TIMES QUICKER**

**FELINS TYING MACHINE COMPANY**  
MILWAUKEE, WISCONSIN

#### MESSINGER



DUSTERS: 8 Sizes, 98 Models



THRESHERS: 4 Sizes



CORN SHELLERS: 3 Sizes



**MESSINGER MFG. CO.,**

**A. N. Street,**

**TATAMY, PA., U. S. A.**

**Since 1875**





WRITE for our 1939 descriptive  
Wholesale Trade List.  
(For the trade only)

Lining-out Stock  
Balled Stock  
Fine Pfitzer Juniper Cuttings  
now ready.

**SHERWOOD NURSERY CO.**

Evergreens  
Propagators & Growers

141 S. E. 65th Avenue PORTLAND, ORE.  
Remember the Convention, Portland, 1939

### Portland Wholesale Nursery Co.

306 S. E. 12th Avenue  
Portland, Oregon

To the Trade Only

A complete line of  
Nursery Stock and  
Nursery Supplies.

Catalogue sent on request.

### A. MCGILL & SON

FAIRVIEW, OREGON  
Wholesale Only

#### ROSES

Send us you list of wants

Fruit Tree Seedlings  
Flowering Ornamental Trees  
Shade Trees

Grown right and packed right

Combination carloads to eastern distrib-  
uting points save you on freight.

### PACIFIC COAST NURSERY

2244 N. Skidmore Court  
Portland, Ore.

We have a surplus of Mazzard, Mahaleb,  
Myrobalan, Quince, Pear and Apple seed-  
lings in all grades. Samples upon re-  
quest.

John Holmason, Prop.

Another season just  
closed with stock entire-  
ly sold out. We take this  
opportunity to thank  
our customers for their  
patronage.

**HOWARD ROSE CO.**  
Hemet, California



Daphne Odora, 2 1/2-in. pots, extra strong,  
\$19.00 per 100, \$90.00 per 1000  
Grafts—Acer Palmatum, Cutleaf and  
Atropurpureum. Thuja Obtusa. Norway  
Weeping Spruce. Beech: Tricolor, Atro-  
purpurea, Weeping.

12 to 15 ins., \$25.00 per 100.

**R. P. RESSEL** Mulino, Ore.

a sizable exhibit, which included fruit  
as well as floral displays. The fruit  
trees were given an added interest by  
a showing of fruit in lesser known  
varieties arranged in baskets around  
a fountain setting.

An informal planting by R. San-  
ford Martin, landscape architect, with  
plants from the Tuttle Bros. Nurs-  
eries, used *Cornus florida rubra* to  
good advantage.

Garden clubs pooled their talents  
and resources to landscape the rolling  
natural hillside setting of the building.  
This project was made possible by the  
furnishing of material and coopera-  
tion by the following nurseries and  
landscape artists: Tuttle Bros. Nurs-  
eries; Coolidge Rare Plant Gardens,  
Ltd.; Rust Nurseries; Crown City  
Fence Co.; Milliken Iris Gardens;  
McAfee Gardens; Paul Cuilhe; Mor-  
gan Fernery; Jacques Hahn; Long's  
Nursery; Jones Desert Rock Co.;  
Campbell's Seed Store, and the Yew  
Gardens.

#### ETHICS OF TREE WORK.

[Concluded from page 13.]

crease in the total amount of busi-  
ness by all arborists collectively. In-  
dividually, each would receive the  
share to which he would be entitled,  
and, as I said before, he would re-  
ceive full price and make full profit  
on that share. And he would receive  
recognition as a professional man and  
stand high in the regard of his clients  
and his community.

To adopt and adhere to such a  
code of ethics would not be unselfish;  
it is the most selfish thing an arborist  
could do. And it is a type of selfish-  
ness in which one could take great  
pride.

Efforts have been and are being  
made to raise the status of arborists  
in the public esteem by the passage  
of laws of various types. I question  
the value of such laws. The end can  
more easily and more quickly be  
reached by the simple process I men-  
tioned some time back, each individ-  
ual properly conducting himself and  
his business.

F. H. KNIGHT, Hillyard, Wash.,  
has purchased some land from the  
city to add to his nursery on Empire  
street.

THE Bergman Nurseries, Quincy,  
Ill., have been established on North  
Twelfth street. This was formerly  
the Forest Oak Nurseries.

## OREGON-GROWN ROSEBUSHES

Send for list  
of 1939-40 crop.

List ready May 15

### PETERSON & DERING, INC.

Wholesale Rose Growers

Scappoose, Oregon

Plan to attend the 1939 A.A.N.  
convention in Portland, Ore.,  
July 10 to 14.

## FRUIT and SHADE TREE SEEDLINGS

Oregon and Washington Grown  
Apple, Pear, Mahaleb, Mazzard,  
Myrobalan

Quince (rooted cuttings)

Chinese Elm Seedlings

Complete Line General Nursery Stock.

Chinese Elm, Transplanted Specimens.

Norway Maple, Lining-out Whips.

Send list of your wants for prices.

New catalogue now ready.

Combination carloads to eastern dis-  
tributing points.

### MILTON NURSERY CO.

A. Miller & Sons, Inc.  
Since 1878  
Milton, Oregon

## Oregon-Grown Trees

BRING SATISFACTION

We have a fine lot of stock coming  
on for this fall.

May we quote you now from advance  
lists? Catalogue September 1.

### DOTY & DOERNER, Inc.

Route 6, Box 92  
Portland, Oregon

## ORENCO NURSERY CO.

Orengo, Oregon  
WHOLESALE GROWERS

Fruit, Shade, Flowering Ornamental  
Trees, Fruit-tree Seedlings, Roses, Etc.  
Very complete line of quality stock  
Catalogue sent on request.

## WILLIS NURSERY Co.

Wholesale Nurserymen

Write for Catalogue

OTTAWA - - KANSAS

## ROSE REGISTRATIONS.

The American Rose Society's registration committee has approved application for registration of the roses listed below. If no objections are made before May 16, 1939, the registration will become permanent, announces R. Marion Hatton, secretary.

**Sungold.** Climbing hybrid tea. Originated by the late George C. Thomas, Jr., Beverly Hills, Cal. To be introduced by the Armstrong Nurseries, Ontario, Cal. Said to be a seedling of Margaret Anderson and climbing Souvenir de Claudius Pernet. Reported as a vigorous climbing plant, blooming from May to September, with bright golden yellow, moderately fragrant flowers with twenty-five to thirty-five petals.

**Jean Cote.** Hybrid tea. Originated by Jean Gaudard, Feyzin, Isere, France, and introduced into the United States by the Jackson & Perkins Co., Newark, N. Y. Reported as a recombination of unnamed seedlings of the Pernetiana rose. Said to be a free and hardy plant, blooming continuously from June to November, with apricot-orange blooms of 100 petals. Moderately fragrant.

**Dickson's Red.** Hybrid tea. Originated by A. Dickson & Sons, Newtownards, Ireland. To be introduced by the Jackson & Perkins Co. Said to be a seedling from unnamed seedlings of the Dickson strain. Plant reported as free and hardy with velvety crimson-scarlet flowers of thirty petals. Strong fragrance.

**Riviera.** Hybrid tea. Originated by Pedro Dot, Roses de Llobregat, Barcelona, Spain. To be introduced by the Jackson & Perkins Co. Plant reported as vigorous, free and extremely hardy, blooming from May to November. The flower is orange scarlet with a golden base. Moderate fragrance; forty-five petals.

**Satan.** Hybrid tea. Originated by L. Pahisa, Roses de Llobregat. To be introduced by the Jackson & Perkins Co. Parentage unknown in this country. Plant reported as bushy, upright, free and hardy, blooming from June to November. Flowers with twenty-five to thirty petals of medium size, extremely dark red with the reverse sides somewhat lighter.

**Holstein.** Polyantha. Originated by W. Kordes Sohne, Sparrieshoop, Germany. To be introduced by the Jackson & Perkins Co. Said to be a seedling of Elise Poulsen x a seedling of Dance of Joy. Plant reported as bushy, upright, free and extremely hardy, blooming from June to October. Flowers are four inches across, of a dark red color, have six petals and are slightly fragrant.

**Patrick Anderson.** Hybrid tea. Originated by Samuel McGredy & Son, Portadown, Northern Ireland. To be introduced by the Jackson & Perkins Co. Said to be a seedling of John Henry x Portland Franchise. Plant is upright and vigorous, blooming from June to October. Large, rose-pink flowers four inches across, with thirty-five to forty petals. Moderately fragrant.

**Hector Deane.** Hybrid tea. Originated by Samuel McGredy & Son. To be introduced by the Jackson & Perkins Co. Said to be seedling of Lesley Dudley x McGredy's Scarlet. Blooming from June to October. Plant is upright, vigorous, free and hardy with orange-scarlet flowers four inches across, with twenty-five petals. Extremely fragrant, with old rose scent. It won the Clay challenge vase for the best new scented seedling at Chelsea in 1936.

**Bertha Gorst.** Hybrid tea. Originated by G. Beckwith & Son, Hoddessdon, Hert, England. To be introduced by the Jackson & Perkins Co. Said to be a sport of Autumn. Plant is free and hardy. Flowers are a brilliant carmine, three and one-half inches across. Moderate fragrance. Twenty-five petals.

**Zulu Queen.** Hybrid tea. Originated by W. Kordes Sohne. To be introduced by the Jackson & Perkins Co. Reported to be a seedling of (Catherine Kordes x E. G. Hill) x Fritz Heger. Plant described as of medium growth, blooming from June to October. Flower is dark maroon, four and one-half inches across, with forty-five petals. Medium sweet fragrance.

**Lady Bountiful.** Large-flowered climber. Originated by C. S. Tait, Brunswick, Ga. Introduced by Bobbink & Atkins, Rutherford, N. J. Said to be a stray seedling of American Pillar. Plant is described as a climber or excellent creeper, with rugosa-like foliage. It is vigorous and hardy, blooming profusely in June. Flowers are reported to be like those of American Pillar, scarlet rose with a white center.

**Murray Hill.** Hybrid tea. A sport of Joanna Hill, discovered by L. B. Coddington, Murray Hill, N. J., and to be introduced by himself. Plant is reported as similar to that of Joanna Hill, blooming profusely with yellow flowers of about the same coloring as the old tea rose, Perle des Jardins. Flowers are three and one-half to four inches across, with twenty-six to twenty-eight petals, and are moderately fragrant.

**Fiesta.** Hybrid tea. A sport of the Queen Alexandra rose discovered by Charles B. Hansen, Ontario, Cal. To be introduced by the Armstrong Nurseries, Ontario, Cal. Plant may be described as spreading, dwarf, with large, glossy, dark green foliage, and blooming continuously from May to November. Flowers are vermilion, beaked and splashed with gold, measuring three to five inches across, with thirty-five petals. Rich tea fragrance.

**Harvest Time.** Climbing hybrid tea. Originated by the late George C. Thomas, Jr. To be introduced by the Armstrong Nurseries. Said to be a seedling of Sophie Thomas x Souvenir de Claudius Pernet. Plant reported as a vigorous climber with hardiness untested. Blooms freely from May to October. Flowers of rich apricot, five to six inches across, with twenty-five to thirty petals. Rich fruit fragrance of ripe apricot.

**Nanjemoy.** Climbing hybrid tea. Originated by Whitman Cross, Chevy Chase, Md. Introduction not decided on. Said to be a seedling of Mme. Gregoire Staechelin x Bloomfield Comet. Reported as a climber of moderate growth with disease-resistant foliage and blooming freely from June to October. Flowers are light pink with darker reverse, three and one-half to five inches across, with eighteen to twenty-five petals. They are moderately fragrant and bloom in loose clusters.

**Majorca.** Hybrid tea. Originated by Pedro Dot, Roses de Llobregat. To be introduced by the Conard-Pyle Co., West Grove, Pa. Said to be a seedling of Angela Mateu x (K. of K. (Kitchener of Khartoum) x Director Rubio). Plant reported to be of upright growth, moderately hardy, blooming freely from June to October. Flowers are spectrum red, four to four and one-half inches across, with twenty to twenty-five petals. Honey fragrance.

**Girona.** Hybrid tea. Originated by Pedro Dot, Roses de Llobregat. To be introduced by the Conard-Pyle Co. Said to be a seedling of Li Bures x Tallman. Plant reported as upright, moderately fragrant. Flowers are Tyrian rose and yellow, four inches across, with twenty to thirty petals and an air of roses fragrance.

**Mme. Charles Mailier.** Hybrid tea. Originated by Charles Mailier, Varcos, France. To be introduced by the Conard-Pyle Co. Said to be a seedling of Lucy Nicolas x an untried seedling. Plant is reported as upright and moderately hardy. Flowers are coral rose against a coppery yellow back, three to three and one-half inches across, with thirty to forty petals. Slight clove fragrance.

## MICHIGAN NOTES.

August 16 and 17 have been the dates selected for the annual summer meeting of the Michigan Association of Nurserymen, to be held at Benton Harbor. A meeting of the committee in charge was held at the Vincent hotel, Benton Harbor, March 10, and tentative plans for entertainment were formulated. Arthur L. Watson, president of the association, met with the committee. Besides inspecting the establishment of the A. B. Morse

## CHINESE ELM SEED

True, hardy North China strain, from local trees that have stood temperatures lower than 30 below zero.

Our seed is carefully selected from true-to-type trees, far distant from American Elm, and from trees that carry practically no blanks.

## PRICES ARE THE LOWEST EVER

We have pleased hundreds of customers, and can please you.

Early orders are filled first. Write today.

**Washington Nurseries**  
Toppenish, Wash.

## NU CROP

## CHINESE ELM SEED

Now booking

1 lb. ....	\$1.50 per lb.
10 lbs. ....	1.25 per lb.
25 lbs. ....	1.15 per lb.
100 lbs. ....	1.00 per lb.

Order now.

**THE BARTEDES SEED CO.**

Denver, Colorado

## AMERICAN NURSERYMAN

Co., where nurserymen can see nursery catalogues being printed, members will be luncheon guests of the company at the Whitcomb hotel. A trip to the world's largest fruit market at Benton Harbor is also contemplated. Entertainment at the country club will be provided for the ladies by the Benton Harbor Garden Club. The committee in charge of the summer meeting is composed of A. M. Grootendorst, chairman; H. Motford, H. Nagle and Ralph Emlong.

Elmer A. Beamer, Blissfield, former president of the National Livestock Marketing Association, was appointed commissioner of the department of agriculture by Governor Lauren D. Dickinson. Mr. Beamer, who assumed his new position April 15, replaced John B. Strange, who has become a member of the civil service commission.

E. C. Mandenburg, in charge of orchard and nursery inspection for the state, is at the Mayo clinic, Rochester, Minn., for a thorough physical examination.

The third meeting of the spring season of the National Mail Order Nurserymen's Association was held March 30 at the Old Tavern, Plainwell, of which Charles Richards, of Richards Gardens, is proprietor. The final meet-

## GRASS SEED

Radway's

**"For Better Lawns"**  
CENTRAL PARK

Special Mixture of Choice Seeds

5 lbs. \$1.10 25 lbs. \$5.50 100 lbs. \$21.00

## SUNSHINE

BRAND FOR SUNNY PLACES

5 lbs. \$1.65 25 lbs. \$8.25 100 lbs. \$32.00

## GOLFGREEN

For Shady Places and Perfect Turf

5 lbs. \$2.55 25 lbs. \$12.75 100 lbs. \$50.00

All Seed and Fertilizer Free of Fillers

Cash With Order or C.O.D.

**I. L. RADWANER SEED CO., INC.**  
115 BROAD STREET, NEW YORK

Descriptive Leaflet FREE. Inquire Dept. A.

IF YOU plant

**Tennessee**

**Natural Peach Seed**

you will not be sorry. Reliable and Dependable. Write for prices on 1938 crop. 6000 to 7000 seeds to the bushel (50 lb.)

**Fruit Trees, Shade Trees, Ornamental Trees, Shrubs and Evergreens**  
**Southern Nursery & Landscape Co.**  
Winchester, Tennessee

# CHARLIE CHESTNUT

## NOW IN BOOK FORM

The humorous narratives of his business experiences by this racy character, picking on the foibles and failings of his fellow nurserymen, have brought so many requests for back issues and extra copies during the two years they have appeared in the American Nurseryman that they are gathered in book form for further enjoyment.

### CONTENTS:

How to Start a Nursery  
How Agents Bring In the Orders  
Inside Stuff on Mail Order Business  
What to Do at the Convention  
Signs of the Times at the Convention  
How to Figure Costs  
Pointers to Wholesale Salesmen  
Visit with the Landscape Trade  
His Annual Resolutions  
The Real Truth about the Riverbend  
Publicity Experiment  
How to Build a Landscape Department  
A Call on the Trade  
Experiences with Garden Clubs  
Pointers on Propagating  
Ups and Downs of the Nursery Business  
He Helps Make Up an Annual Statement  
He Decides a Budget Is Waste of Time  
How to Raise Your Own Living  
Interesting Facts about the Business

64 pages—5½x7½ inches—  
brown paper cover.

You will want a copy to keep yourself, and perhaps several to provide chuckles for your business associates and other friends.

AMERICAN NURSERYMAN,  
508 S. Dearborn St., Chicago, Ill.

Enclosed is remittance for

.....copies CHARLIE CHESTNUT

☐ 1 copy, 25c    ☐ 10 copies, \$1.75  
☐ 5 copies, \$1.00    ☐ 25 copies, \$4.00

Name .....

Address .....

City..... State.....

ing of the spring season will be held at Bridgman.

Arthur L. Watson escaped with minor injuries when his car was crowded off the road and turned over during a snowstorm. Mr. Watson was returning from the meeting of the National Mail Order Nurserymen's Association at Three Rivers, and was trapped in his wrecked car for some time until a passing motorist helped him to escape.

The case of Peter Patterer, Inc., Battle Creek, which was taken before a referee in Battle Creek to show why Michigan unemployment compensation had not been paid on nursery employees, has been taken under advisement by the referee. It is expected that the case will be taken to the Circuit court. This will apparently be a test case to determine just what nursery employees are subject to the Michigan unemployment compensation act.

### OBITUARY.

#### Charles E. Cattell.

Charles E. Cattell, vice-president of the West Chester Nurseries, West Chester, Pa., died April 10 at the age of 80 years. He was a member of the Union League and the Masons. Surviving are his widow, Christine Wright Cattell; a brother, Andrew C., Columbus, O., and a sister, Miss Emma F. Cattell, Hanover, Mass.

#### George A. Grant.

George A. Grant, manager of the nursery department of the Templin-Bradley Co., Cleveland, O., since 1919, died April 23, at his home, at Rocky River, O.

Slightly over two months ago, Mr. Grant underwent an operation, but was apparently recovering satisfactorily and had resumed daily supervision of his department. Stricken with a heart attack, he died within fifteen minutes, at the age of 59.

Services and burial were at Kansas, Ill., near his boyhood home, April 26. Surviving are his widow, Mary A., and one daughter, Helen, Rio Vista, Cal.

CORINNE SPICER HOLLEY, daughter of the late Charles E. Spicer, has taken over the business of the Adams Nurseries, Adams, N. Y. In so doing Mrs. Holley is keeping in the family a business that was established by her grandfather, E. D. Spicer, in 1867.

## PAPER BARGAIN

For sale: 55 rolls 39-inch and 95 rolls 33-in. Crinkled Duplex Paper at 6½¢ per pound, F.O.B. Chelsea, Mass.

J. SHORE & COMPANY, Inc.  
Chelsea, Mass.

## LABELS FOR NURSERYMEN

THE  
BENJAMIN CHASE  
COMPANY  
DERRY, N. H.

## SALE GOVERNMENT TRACTORS

5-ton or 35 size, \$375.00.

10-ton or 65 size, \$750.00.

Caterpillar make, crawler type, slight usage, thoroughly overhauled. Location New York City and Indian-town Gap, Pa. Demonstration given all during May. Government purchase. Fine tractors and real buys. For particulars address

O. C. EVANS    Mt. Sterling, Ky.

## BAKER PERMANENT PLANT MARKER

Send for illustrated circular

L. D. BAKER PEONY GARDENS  
Kendallville, Ind.

## WANTED

To buy steel stakes for tying buds. Send sample and prices on same to

INTER-STATE NURSERIES  
Hamburg, Iowa.

## North Dakota and Montana Seeds Tree, Shrub and Flower Seeds

Native flowering plants of  
North Dakota Badlands.

E. C. MORAN

Garrison, Mont.    Medora, N. D.

## CHINESE ELM CLEANUP

Per 1000  
6000 Seedlings, 12 to 18 ins. .... \$2.50  
5000 Seedlings, 2 to 3 ft. .... 5.00  
4000 Seedlings, 3 to 4 ft. .... 10.00  
800 Seedlings, 4 to 5 ft. .... 15.00  
All 2-year stock. Cash with order.

W. E. McMURRY

F.O.B. Missoula    Missoula, Mont.



## SOUTHWESTERN NOTES.

J. Frank Sneed, proprietor of Sneed's Nursery Co., Oklahoma City, Okla., who has been on a trip through Kansas and Oklahoma, reports a fair spring business. His company has grafted 30,000 evergreens. Mr. Sneed also has a nursery at Muskogee, Okla.

Kenyon's Nursery, Oklahoma City, Okla., is carrying out an extensive planting plan on the Champlin estate, at Enid, Okla. This company specializes in the production of evergreens, paying particular attention to newer and better varieties.

J. Frank Harness is starting a nursery at Hartford, Kan.

The midwest experienced a late spring planting season, being two weeks behind last year. Most of April was cold and wet.

John Sarber, of the Sarber Nursery, Topeka, Kan., made news by singing a number on the daily 15-minute program he sponsors over radio station WIBW, April 22. This was the first time a sponsor had done such a thing over that station and perhaps anywhere.

Two new additions, which are being developed adjacent to Kansas City, Mo., but across the state line in Kansas, have been the source of much business for Kansas City nurserymen. Many hundreds of homes of the better type have already gone up.

In spite of the biggest rose crop in history the rose growers of Tyler, Tex., report a good cleanup. Prices, however, were so low that many growers may discontinue their activity in this line.

The Lawson Landscape Service, McPherson, Kan., is landscaping the post-office grounds at Glendive, Mont.

The Green Tree Nursery, Pine Bluff, Ark., has six trucks on the road, from which it sells evergreens in Arkansas, Missouri, Kansas and Oklahoma.

## SEEKS LOWER FREIGHT.

H. C. Eargle, traffic manager for Griffing Nurseries, Beaumont, Tex., who was instrumental in obtaining the lower freight rate on nursery stock in Texas by obtaining the basis of column 20 on minimum carload weight of 30,000 pounds, has presented for consideration at the May meeting of the Texas freight bureau a proposal of freight rate changes on nursery stock which will enable the

carriers to regain this class of freight for less than carload movement. In a letter last month to the state traffic manager of the Southern Pacific lines, he proposed these changes: Minimum 2,000 pounds, column 50; minimum 5,000 pounds, column 40; minimum 10,000 pounds, column 30; minimum 20,000 pounds, column 25; minimum 30,000 pounds, column 20; minimum 50,000 pounds, column 15.

## NEW PATENTS.

The following new plant patents were issued the past month, according to Rummel, Rummel & Woodworth, Chicago, patent lawyers:

No. 323. Rose. Edward R. Asmus, Sr., Closter, N. J. A new and distinct variety of rose plant, characterized as to novelty by the fluted form of the petals of its bloom, the color and velvety appearance thereof and the lasting quality of the bloom before bluing occurs.

No. 324. Delphinium. Bonne Ruys, Dordrecht, Netherlands, assignor to Jackson & Perkins Co., Newark, N. Y. A new and distinct variety of delphinium, characterized by the form and habit of growth of the plant, its root system and the pink color of its bloom.

No. 325. Peach tree. John U. Nametz, Benton Harbor, Mich., assignor to Greening Nursery Co., Monroe, Mich. A new variety of peach tree producing peaches identical with those of the variety Halehaven, but with a ripening season one week to ten days earlier than that of Halehaven.

No. 326. Rose. V. S. Hillock, Arlington, Tex. A variety of rose characterized particularly by its resistance to disease and cold, its superior bud, its abundant dark green foliage and its blooms of distinctive color and numerous petals of improved texture as compared with its nearest known competitor, the Mrs. Pierre S. du Pont rose.

## CLASSIFIED ADVERTISING

Peonies: Tree and Herbaceous, best varieties. Oberlin Peony Gardens, Sinking Spring, Pa.

WANTED.  
Large quantity of low-priced liners of all types, shade trees, hedges and shrubs, evergreens.  
MINNESOTA PLANT CO., MORRIS, MINN.

TUFA ROCK.  
For terrariums, gardens in glass, rock gardens, borders, etc. Chicago Public Library reports increasing interest in terrariums. 50-lb. bag, sample, Varicolored Tufa Rock, by freight, \$1.00.  
R. E. SCHWARTZ, BUCHANAN, MICH.

ROOTS—ASPARAGUS, HORSE-RADISH, RHUBARB.  
We grow large acreage of graded stock for wholesale buyers. Now booking orders for spring delivery. Write us.  
GEO. R. PEDRICK & SON,  
Pedricktown, N. J.

BUDDLEIA PINK CHARMING.  
Our propagations are from the original stock plants, true to type. Well established 2-in. pot plants in growing condition, per 10, \$1.75; per 100, \$12.00; 25 at the 100 rate.  
Write for our complete wholesale perennial catalogue, offering the latest introductions.  
THE JOSEPH F. MARTIN CO.,  
Painesville, Ohio.

Evonymus Patens, for lining out, from 2½-in. pots, 4 to 8 ins., branched. \$6.00 per 100; rooted cuttings, 2 to 4 ins., \$1.50 per 100. Spreading Cotoneaster, from 2-in. pots, 4 to 5 ins., \$4.00 per 100; rooted cuttings, \$1.50 per 100. Pyracantha Lalandi, rooted cuttings, \$1.50 per 100. Lodense Privet, 2 to 4 ins., rooted cuttings, \$1.00 per 100. All stock is cold grown. Prices are F.O.B. Kansas City. Cash, please.  
Glasscock Bros., 6119 Agnes, Kansas City, Mo.

## Table of Contents

Spring Delayed .....	2
Friendly Service .....	2
Exempt Nursery Stock .....	2
Good California Trees .....	2
Aronia Melanocarpa Elata .....	2
Hybrid Rhododendrons from Cuttings (illus.) .....	3
—New Medium for Cuttings .....	3
—Leaf-bud Cuttings .....	4
Name Bureau Assistant .....	6
E. A. White Testimonial .....	6
Speculating on Scrophulariads .....	7
By C. W. Wood .....	
Highway Projects .....	8
Notes from a Nurseryman's Wife .....	8
Portland Rose Gardens (illus.) .....	9
Roses at Hemet .....	10
—Keith Monaghan (portrait) .....	10
Hypericum Hookerianum .....	10
Business Ethics of Shade Tree Work .....	11
By Norman Armstrong .....	
Window Advertising (illus.) .....	13
Peach "X" Disease .....	14
Minnesota Officers .....	14
—R. N. Ruedlinger (portrait) .....	14
Cash Payments for Tree Planting .....	15
By John K. Andrews .....	
Wages and Hours Law .....	16
—Further Exemption .....	16
—Approve Amendments .....	16
Oppose Trade Barriers .....	16
Municipal Barriers .....	16
Selected Varieties for Southeast .....	18
By M. E. Gardner .....	
Charlie Chestnut .....	20
A Hurry-up Call from Elmer .....	
Western Tree Meeting .....	22
Corliss Opens Branch .....	23
Illinois Hearing .....	23
Peony Society Show .....	23
New Books and Bulletins .....	24
—The World of Plant Life .....	24
—Garden Planning .....	24
—Bulletins Received .....	24
Insect Control .....	26
—Grasshopper Bait .....	26
—Chinch Bug .....	26
—Tent Caterpillar .....	27
Fruit Market Agreement .....	28
Paul Howard's to Close .....	28
Pasadena Spring Show .....	28
Rose Registrations .....	30
Michigan Notes .....	30
Obituary .....	31
—Charles E. Cattell .....	31
—George A. Grant .....	31
Southwestern Notes .....	32
Seeks Lower Freight .....	32
New Patents .....	32
New Steel Fence .....	33
Plant Patent Suit .....	33
Catalogues Received .....	33

**TWO EASY-WORKING HARD WORKERS**

**THE PORTER Twin-Cut No. 9 Professional** — acclaimed by veteran and novice — brings amazing new performance features to one-hand pruning. A worthy team-mate to the Pointcut, finest of all-range pruners. Proper pruning and quick-healing cuts promote orchard health. Send for catalog of entire Porter line.

**H. K. PORTER, INC.**  
EVERETT, MASS., U. S. A.  
Send catalog of Porter Pruners.

Name.....  
Address.....

AN-5

## Plants Without Soil PLANTET



Recently perfected plant food enables growers to raise seedlings in small space at little cost in sand or cinders. Perfectly balanced combination of 15 chemicals develops plants wonderfully. At your dealer's in economical 10 pound tins. Sample bottle 75 cents, enough for 35 gallons of nutrient mixture. Full directions for soil-less plant growth.

**ELLIS LABORATORIES, Inc.**  
Dept. D.  
92 Greenwood Ave., Montclair, N. J.

## Automatic Irrigation and Supplies

We can supply you anything you need.

Complete Irrigation Lines  
Superior Outdoor Nozzles  
Boiler-bearing Hangers  
Quick-change Unions  
Hand-turning Unions  
Kalamazoo Oscillators  
Drilling and Tapping Machines  
Etc.

Write today for literature and prices

**John Rust Mfg. Co.**

625 W. Patterson St. Kalamazoo, Mich.

## Red UNIVERSAL TRACTOR

**BUY DIRECT**  
low factory prices



Pioneer Mfg. Co., Dept. S-137, West Allis, Wis.

Easier to operate — Costs less money — Does more work... Get field work done faster. Plow, disc, seed, harrow, cultivate, dig potatoes with this powerful garden tractor. Over 4 H. P. on belt work for grinding, mixing, sawing, pumping, etc. Swivel trailer wheels and patented tool lift for easy turning. Air cooled engine. Rubber or steel tires. Amazing low cost operation. Buy direct at factory prices. Write.

## NEW STEEL FENCE.

A new interlocking steel fence has been developed for nurserymen, seedsmen, florists and gardeners by the Cornell Iron Works, Inc., Long Island City, N. Y. The fencing features interlocking steel barriers that will drive readily into the ground to a depth of two or three feet or more. The interlocking joints and arched contour make a strong fence as well as a tight underground barrier against encroaching roots, seepage and ground animals.

Easily driven into the ground, the new fencing will cut through most any obstruction, with the exception of stones. The interlocking feature allows the fence readily to accommodate itself to nearly any shape of border or bed. While not watertight without a lining, the fence will greatly restrict the flow of underground water.

The fencing may be obtained in any length desired under the trade name of Llenroc interlocking steel fence.

## PLANT PATENT SUIT.

A suit has been filed in the United States District Court in Maryland, Docket 72, by McKee Poplar Forestation, Inc., New York, against the Glatfelter Pulp Wood Co., for the infringement of plant patents Nos. 211, 215, 216, 217 and 229, for hybrid poplars. This litigation was filed January 4, 1939.

All of these patents except No. 229 were issued to Ralph H. McKee January 5, 1937; No. 229 was issued January 26, 1937. It was noted at the time the patents were issued that the original applications were filed August 26, 1930, shortly after the plant patent law went into effect and seven years before the patents were granted.

## CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in the American Nurseryman.]

N. A. Hallauer, Webster, N. Y.—A 24-page price list of hardy herbaceous and alpine plants, dwarf shrubs and bulbs.

Wadena Northwest Nursery, Wadena, Minn.—A 14-page booklet listing ornamentals, fruits and small fruits.

Herbst Bros., New York, N. Y.—A pocket-size catalogue of twenty-four pages, listing tree, shrub, perennial, vegetable and flower seeds for the trade.

Charles H. Williams Nurseries, Exeter, N. H.—A 32-page catalogue listing hardy native plants, evergreens and shrubs.

## FOR ROOTING CUTTINGS

**Faster and Surer Dip Base of Cutting IN**

**ROOTONE**

PATENTS PENDING  
the PLANT HORMONE POWDER  
**NO SOAKING IN SOLUTION IS NEEDED**

**AT THE RICHMOND CONVENTION**  
of the A. A. S. scientists reported on the powder method as follows: "No cuttings were killed by overdosage with ROOTONE." "Cuttings tolerate dust much better than solution treatment." "Difficult species respond well to dust treatment."

**IT WAS FURTHER RECOMMENDED**  
that woody cuttings be moist or damp when dipped into powder so as to pick up more.

## Advantages of the DUST treatment

1. "The cost is very low as the amount of dust used per cutting is very small. In general, a pound of dust might be expected to treat at least 20,000 to 40,000 cuttings."
2. "The saving of time is very great as the dust is quickly applied and the cuttings may be inserted at once into the propagating bed."
3. "The method is simple and requires no apparatus. Charts of dosages are not essential, and the treatment is safe in the hands of inexperienced workmen."
4. "The method is exceedingly effective in practice. Hastening of rooting, increase in size of root system, and percentage of survival are equal or even superior to the results obtainable with solutions."



## ARBOR-VITAE

1-lb. Can . . . . . \$5.00  
2-oz. Jar (trial size) . . . 1.00

**Rootone keeps indefinitely**

AT YOUR DEALER OR WRITE

**AMERICAN CHEMICAL PAINT CO.**  
Rootone Division A-2 AMBLER, PA.

## CHINESE TUBS



Made very sturdy and strong. One size only. Top diameter 12 ins. inside. Depth 10 ins.

Each  
1 to 11 .40c  
12 to 49.85c  
50 to 99.33c  
100 or more .....30c

Weight each, 6 lbs.

## BLUE BOOK

New catalogue of Nursery Supplies, Tree Surgeons' Supplies. Send for free copy.

**American Florist Supply**  
1335 W. Randolph St.  
CHICAGO

## BURLAP SQUARES

Sizes 14 to 40 inches. Packed 500 per bale.

## CHINESE TONKIN CANES

In 8 sizes, medium and heavy.

## GRANULATED PEAT

Single bales to carloads.

## HARDY GARDEN LILIES

RUBRUM MAGNIFICUM, AURATUM, ALBUM, REGALE, etc.

Always glad to quote—write us.

**McHUTCHISON & CO.**  
95 Chambers St. New York

**The GRAVELY**  
GARDEN TRACTOR & POWER MOWER

Write for facts.  
**GRAVELY MFG. CO.**  
Box 517  
Dunbar, W. Va.

The ideal machine for the Commercial Grower...  
Goes in narrow rows...  
Has ample Power.

## HAMILTON TRANSPLANTER

Model C—With automatic steering device.

For celery, etc.

Model H—Horse or farm tractor drawn.

For cabbage, tomatoes, nursery stock.

As low as \$76.00—Discounts to dealers.

Overhead Irrigation and Porous Rain Hose.

**HAMILTON MFG. & MACHINE CO., Hamilton, Mich.**

Oldest Mfgs. of automatic plant setters.

Please Mention  
**THE AMERICAN NURSERYMAN**  
when writing advertisers

## INDEX TO ADVERTISERS

Aeroil Burner Co.....	36	Kellay Bros. Co.....	23
American Chemical Paint Co.....	33	Koster Co., Inc.....	23
American Color & Chemical Co.....	35	Krieger's Wholesale Nursery.....	27
American Florist Supply.....	34	Lake's Shenandoah Nurseries.....	22
Andrews Nursery.....	27	Leonard & Son, A. M.....	35
Appalachian Nurseries.....	21	Lovett, Lester C.....	21
Ariens Co.....	35		
Bailey Nurseries, J. V.....	25	Martin Co., Joseph F.....	32
Baker Peony Gardens, L. D.....	31	Mathews Eggert Nursery.....	23
Ball, Inc., Geo. J.....	35	McGill & Son, A.....	29
Bardona Nursery.....	21	McHutchison & Co.....	34
Barteldes Seed Co.....	30	McIlhenny, E. A.....	22
Bartlett Mfg. Co.....	36	McMurry, W. E.....	31
Bay State Nurseries, Inc.....	21	Meehan Co., Thomas B.....	23
Bealle, J. B.....	25	Messinger Mfg. Co.....	28
Bobbink & Atkins.....	23	Milton Nursery Co.....	29
Bountiful Ridge Nurseries.....	27	Minnesota Plant Co.....	32
Brand Peony Farms.....	26	Moran, E. C.....	31
Burr & Co., C. R.....	21	Mount Arbor Nurseries.....	18
California Spray-Chemical Corp.....	35	Natorp Co., W. A.....	23
Campbell-Hausfeld Co.....	36	Oberlin Peony Gardens.....	32
Chase Co., Benjamin.....	31	Offenberg Nursery Co., Paul.....	24
Cloverset Flower Farm.....	35	Oreco Nursery Co.....	29
Crystal Soap & Chemical Co.....	35		
Doty & Doerner, Inc.....	29	Pacific Coast Nursery.....	29
Dummett, Arthur.....	21	Pedrick & Sons, Geo. R.....	32
		Perennial Nurseries.....	23
Ellis Laboratories, Inc.....	33	Peterson & Dering, Inc.....	29
Eschrich's Nursery.....	25	Pioneer Mfg. Co.....	33
Evans, O. C.....	31	Pirtle Bros. Nursery.....	26
Evergreen Nursery Co.....	25	Plant Buyer's Service.....	25
		Porter, Inc., H. K.....	33
Felins Tying Machine Co.....	28	Portland Wholesale Nursery Co.....	29
Forest Nursery Co.....	17	Princeton Nurseries.....	21
Foster Nursery Co.....	27	Process Color Printing Co.....	36
Garden Shop, Inc.....	19	Radwaner Seed Co.....	30
Gardner Nurseries, Clark.....	35	Ressel, R. P.....	29
Glasscock Bros.....	32	Riverside Nurseries, Inc.....	23-25
Goodrich Co., B. F.....	19	Robinson, E. D.....	21
Gravelly Mfg. Co.....	34	Rust Mfg. Co., John.....	33
Hamilton Mfg. & Machine Co.....	34	Scarff's Nurseries.....	27
Harmon Nursery.....	25	Schwartz, R. E.....	32
Hazelton, Fred.....	27	Sherman Nursery Co.....	25
Herbst Bros.....	21	Sherwood Nursery Co.....	29
Hess' Nurseries.....	36	Shore & Co., J.....	31
Hill Nursery Co., D.....	25	Southern Nursery & Landscape Co.....	30
Hill Top Nurseries.....	25	Storrs & Harrison Co.....	20
Hobbs & Sons, C. M.....	26		
Hogansville Nurseries.....	27	Uecke Evergreen Nursery.....	25
Holton & Hunkel Co.....	25		
Horsford Co., William.....	23	Verhalen Nursery Co.....	27
House of Gurney, Inc.....	24	Visser's Nurseries.....	23
Howard Rose Co.....	29		
Hunt & Son, M. H.....	35	Washington Nurseries.....	30
		Waynesboro Nurseries, Inc.....	21
Inter-State Nurseries.....	31	Weathered Oak Herb Farm.....	23
		Westminster Nurseries.....	23
Jackson & Perkins Co.....	21	Willis Nursery Co.....	29
		Willowbend Nursery.....	27
		Wyman's Framingham Nurseries.....	21



## Make More Profit

Sell Your Roses, Perennials, Shrubs, Vines and  
Fruit Trees Started and Growing in  
**CLOVERSET PLANT POTS**



Patent No. 2973695

Nursery Stock grown in Cloverset Patented Pots can be sold and planted without wilt to bud or bloom any time from March until freezing weather. Write today for Free Illustrated circulars and testimonials from users of these pots.

Carton of samples by mail 25c.

**Cloverset Flower Farm**  
ERNEST HAYSLER and SON

10520 Broadway, Kansas City, Mo.

## ATTENTION NURSERYMEN!

*Spray with, and  
recommend*



**IMP.  
SOAP  
SPRAY**

Use 1 part with 25 to 40  
parts of water

Ask your nearest seedsman, or  
write for literature.

**THE AMERICAN COLOR  
AND CHEMICAL CO.**  
176 Purchase St. Boston, Mass.

## SPRAY WITH C.P.O.

For better control of Juniper Scale, Red Spider, Lace Bug, Spruce Gall Aphid, Aphid and most nursery pests, use this safe, odorless, nonpoisonous and non-staining spray. C. P. O. reduces nicotine costs.

Free literature and samples

**Crystal Soap & Chemical Co.**  
Incorporated

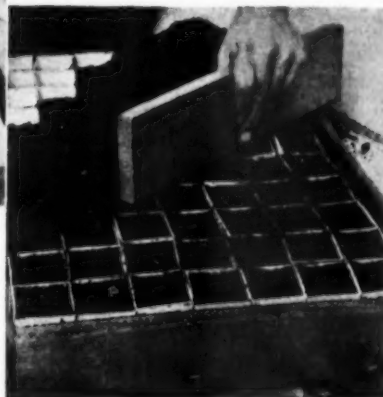
Department AN

6300 State Road Philadelphia, Pa.



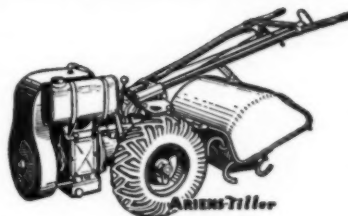
*Grog Ball*  
I N C.  
WEST CHICAGO  
ILLINOIS

"FLOWER SEEDS FOR NURSERYMEN"



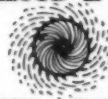
Inexpensive wood plant  
bands instead of pots for  
growing on perennials.  
Better write for samples.

## A COMPLETELY PULVERIZED LEVEL SEED BED IN One OPERATION AT Lower COST



ARIENS CO., Box 710, Brillion, Wisconsin

**ARIENS-Tiller**



THE AMERICAN TILLAGE COMBINE

Ariens-Tiller pays for itself in time and money saved—the ideal tillage combine for nurserymen. Once over the ground does the job—no plow sole—no large chunks of soil to retard plant growth. 3 models to meet all requirements. Write for complete information and name of nearest distributor so you may see it.

## CLARK GARDNER NURSERIES

Osage, Iowa

Originators of patented SEMI-POT-  
TED PLANT AND BULB PACKAGE  
for over-counter trade. Has WATER-  
ING TUBE and other unique features.

## DEADLINE Insect Barrier

● A sticky compound for banding trees,  
vines, roses and nursery stock to protect  
from climbing and crawling pests such as  
Ants, certain Caterpillars, climbing Cut  
Worms, Beetles, etc. **FINE Pest Control Guide**

CALIFORNIA SPRAY-CHEMICAL CORPORATION  
Elizabethtown, New Jersey

**STOPS THE PESTS!**



## NURSERY TOOLS

Nursery Spades, Kunde Knives  
and Pruning Shears, Budding and  
Grafting Supplies, Tree Surgery  
Equipment.

Write for Free 96-page Catalogue.

A.M. LEONARD & SON

PIQUA, OHIO



## ACME GRAFTING COMPOUND

A new grafting compound endorsed by Michigan  
State College. Moderately priced and applied cold  
with a brush. Used also as a protective coating  
for injury. We can also supply Hand and Brush  
grafting wax and wax heaters. Send for price list.  
Special prices in quantity lots to nurserymen.

M. H. Hunt & Son, 510 N. Cedar St.  
Lansing, Mich.

# WHOLESALE PRICE LIST OF LINING-OUT STOCK — Spring 1939

## LINING-OUT STOCK SEEDLINGS

	per 100	per 1000
<i>Acer palmatum</i> , 1-yr., 4 to 6 ins.	\$2.00	\$18.00
<i>Berberis Thunbergii</i> , 1-yr., 6 to 8 ins.	1.00	8.00
<i>Berberis Thunbergii atropurpurea</i> , 1-yr., 4 to 6 ins.	2.50	20.00
<i>Cydonia japonica</i> , 1-yr., 4 to 6 ins.	2.50	20.00
<i>Fagus americana</i> , 1-yr., 4 to 6 ins.	2.50	20.00
<i>Ginkgo biloba</i> , 4 to 6 ins.	3.00	25.00
<i>Juniperus virginiana</i> , 1-yr., 3 to 6 ins.	3.00	25.00
<i>Juniperus virginiana</i> , 2-yr., 8 to 12 ins.	5.00	40.00
<i>Laburnum vulgare</i> , 6 to 8 ins.	2.50	20.00
<i>Pinus Muglius</i> , 2 to 4 ins.	2.50	20.00
<i>Pinus nigra</i> (austrica), 4 to 6 ins.	2.50	20.00
<i>Pinus Strobus</i> , 3 to 6 ins.	2.50	20.00
<i>Pseudotsuga Douglasii</i> , 4 to 6 ins.	2.00	15.00
<i>Syringa vulgaris</i> , 12 to 18 ins.	2.50	20.00
<i>Thuja occidentalis</i> , 2 to 4 ins.	2.00	15.00
<i>Thuja occidentalis</i> , 10 to 15 ins., transpl.	10.00	75.00
<i>Thuja orientalis</i> , 1-yr., 3 to 6 ins.	1.50	10.00
<i>Thuja orientalis</i> , 2-yr., 6 to 8 ins.	2.00	15.00
<i>Thuja orientalis</i> , 12 to 18 ins., transpl.	5.00	40.00

## CUTTINGS

Well established plants from 2 1/4-inch pots

	per 10	per 100
<i>Juniperus depressa plumosa</i>	\$1.10	\$10.00
<i>Juniperus horizontalis Bar Harbor</i>	1.10	10.00
<i>Ilex crenata rotundifolia</i>	1.10	10.00
<i>Retinispora plumosa aurea Gold Dust</i>	1.10	10.00
<i>Retinispora squarrosa nana</i>	1.10	10.00
<i>Taxus cuspidata</i>	1.10	10.00
<i>Taxus cuspidata capitata</i>	1.10	10.00
<i>Taxus media</i>	1.10	10.00
<i>Taxus media Hicksii</i>	1.10	10.00
<i>Taxus Hunnewelliana</i>	1.10	10.00
<i>Taxus repandens</i>	1.10	10.00
<i>Thuja occ. globosa</i>	1.10	10.00
<i>Thuja occ. pyramidalis</i>	1.10	10.00
<i>Thuja occ. recurva nana</i>	1.10	10.00

TERMS: Prices in this list are net cash, but the usual terms will be extended to those of established credit. No goods sent C.O.D. unless 25 per cent of amount is sent with order. Five of one kind will be billed at the 10 rate, 25 at the 100 rate, 250 at the 1000 rate.

## GRAFTED STOCK from 2 1/4-inch pots

	per 10	per 100
<i>Acer palmatum Ashi-Benl</i>	\$3.50	\$30.00
<i>Acer palmatum atropurpureum novum</i>	3.00	25.00
<i>Acer dissectum atropurpureum</i>	3.00	25.00
<i>Cedrus atlantica glauca</i>	4.00	35.00
<i>Chamaecyparis obtusa gracilis nana compacta</i>	3.00	25.00
<i>Cornus florida pendula</i>	4.00	35.00
<i>Cornus florida rubra</i>	3.00	25.00
<i>Fagus sylvatica pendula</i>	3.00	25.00
<i>Fagus sylvatica Riversii</i>	3.00	25.00
<i>Fagus sylvatica tricolor</i>	3.75	35.00
<i>Ilex opaca femina</i>	2.75	25.00
<i>Ilex opaca Howardii</i>	2.75	25.00
<i>Juniperus columnaris glauca</i>	2.75	25.00
<i>Juniperus columnaris viridis</i>	2.75	25.00
<i>Juniperus chinensis neoborensis</i>	2.75	25.00
<i>Juniperus chinensis Sargentii</i>	2.75	25.00
<i>Juniperus squamata</i>	2.75	25.00
<i>Juniperus squamata argentea variegata</i>	2.75	25.00
<i>Juniperus virginiana Burki</i>	2.75	25.00
<i>Juniperus virginiana Canertii</i>	2.75	25.00
<i>Juniperus virginiana elegantissima</i>	2.75	25.00
<i>Juniperus virginiana glauca</i>	2.75	25.00
<i>Juniperus virginiana globosa</i>	2.75	25.00
<i>Juniperus virginiana Keteleeri</i>	2.75	25.00
<i>Juniperus virginiana Kosteri</i>	2.75	25.00
<i>Juniperus virginiana Schottii</i>	2.75	25.00
<i>Juniperus virginiana pendula</i>	2.75	25.00
<i>Juniperus virginiana pyramidiformis</i>	2.75	25.00
<i>Magnolia Alexandrina</i>	3.25	30.00
<i>Magnolia Halliana stellata</i>	3.25	30.00
<i>Magnolia Soulangeana</i>	3.25	30.00
<i>Magnolia Soulangeana nigra</i>	3.25	30.00
<i>Thuja occidentalis Doug'asii spiralis</i>	2.25	20.00
<i>Thuja occidentalis elegantissima</i>	2.25	20.00
<i>Thuja occidentalis lutea Geo. Peabody</i>	2.25	20.00
<i>Thuja occidentalis lutea B. &amp; A. Type</i>	2.25	20.00
<i>Thuja occidentalis nigra</i>	2.25	20.00
<i>Thuja occidentalis Rosenthali</i>	2.25	20.00
<i>Thuja occidentalis Wareana (sibirica)</i>	2.25	20.00
<i>Thuja orientalis aurea nana</i>	2.00	18.00
<i>Thuja orientalis conspicua</i>	2.00	18.00
<i>Thuja orientalis elegantissima</i>	2.00	18.00
<i>Tsuga canadensis Sargentii</i>	2.75	25.00

**HESS' NURSERIES, Mountain View, New Jersey**



**This Attractive Steel Display Rack Fully Stocked Costs You Only \$4.75**

F.O.B. Detroit. Retail value \$7.05.

This antiseptic compound is regarded best by authorities for quick healing after pruning. Contains no harmful ingredients and is applied with ordinary paint brush.

Here's a fast-moving specialty which sells to State Highway Depts., City and County Parks, Tree Experts, Cemeteries and Fruit Growers. Every tree owner is a prospect.

RACK DISPLAYS  
6 half pts., 5 pts. and 4 qts.

**BARTLETT MFG. CO.**  
3058 East Grand Blvd., Detroit, Mich.

## Don't Buy Any Nursery Sprayer Until You Have Tried the PARAGON No. 5 With Money-Back Guarantee



We ship, freight paid, complete for 10 days' trial with money-back guarantee, with 25 ft. high-test spray hose, 10-ft. extension spray pipe and 3 nozzles.

Fill the 50-gallon container with any spray solution, whitewash or water paint. Take it anywhere; the wide convex steel wheel rims can't cut into turf; low suspension of removable container in steel chassis prevents upsetting on hillsides. The extraordinary pressure and long high-test spray hose enable you to do a thorough job of spraying or painting with very little effort and without changing location of the Sprayer.

Brass Air Compression chamber is 12 inches high by 4 inches diameter, with cast bronze top and bottom caps. Pump body, plunger and strainer also of brass, designed for lifetime service. Two agitators prevent solution from settling in container or clogging nozzles. Mail coupon for catalogue and 10-day trial offer.

**THE CAMPBELL-HAUSFELD CO., 503 State Ave., Harrison, O.**  
Send Free Catalogue, Price List and Trial Offer on Paragon Sprayers.

Name..... County.....  
P. O. .... State.....

**SPECIAL OFFER**  
80-page Nursery Salesman's  
Plate Book 75c  
in full cloth  
**Process Color Printing Co.**  
701 Searle Bldg. Rochester, N. Y.

**KILL WEEDS WITH 2000° FLAME**  
FREE 48 PAGE BOOK  
—tells how the wonderful  
AEROL BURNER with  
its 2000° flame kills all  
weeds, and solves 99 other farm problems.  
SOLD ON FREE TRIAL. Write AEROL  
West New York New Jersey Dept. 11